



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 101115

TO: Ruixiang Li  
Location: CM1/10D19/10E18  
Art Unit: 1646  
Wednesday, August 13, 2003

Case Serial Number: 09/727739

From: Edward Hart  
Location: Biotech-Chem Library  
CM1-6B02  
Phone: 305-9203

edward.hart@uspto.gov

### Search Notes

Examiner Li,

Here are the results of the search you requested.

Please feel free to contact me if you have any questions.

Edward Hart

ABSP2

SEQ ID 2 & 16

Commercial DB's

Wed Aug 13 16:15:28 2003

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:45:37 ; Search time 46.7949 Seconds  
(without alignments)  
84.799 Million cell updates/sec

Title: US-09-727-739B-16

Perfect score: 147

Sequence: 1 SVDNLPFRKAGCKNFYKGFSC 25

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 1107863 seqs, 158726573 residues

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Listing first 45 summaries

Database :

A\_Geneseq\_19Jun03.\*  
1: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1980.DAT.\*  
2: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1981.DAT.\*  
3: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1982.DAT.\*  
4: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1983.DAT.\*  
5: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1984.DAT.\*  
6: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1985.DAT.\*  
7: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1986.DAT.\*  
8: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1987.DAT.\*  
9: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1988.DAT.\*  
10: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1989.DAT.\*  
11: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1990.DAT.\*  
12: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1991.DAT.\*  
13: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1992.DAT.\*  
14: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1993.DAT.\*  
15: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1994.DAT.\*  
16: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1995.DAT.\*  
17: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1996.DAT.\*  
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19: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1998.DAT.\*  
20: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA1999.DAT.\*  
21: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA2000.DAT.\*  
22: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA2001.DAT.\*  
23: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA2002.DAT.\*  
24: /SIDSI/gcgdata/geneseq/geneseq-emb1/AA2003.DAT.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Query	Score	Match	Length	ID	Description
1	147	100.0	111	22	AAU07668	Rainbow trout prep
2	138	93.9	125	3	AAP20029	Sequence of prepro
3	134	91.2	115	22	AAU07667	Rainbow trout prep
4	132	89.8	28	7	AAP61714	Somatostatin-28 an
5	132	89.8	28	10	AAP90989	Analogue of angler
6	107	72.8	114	22	AAU07666	Rainbow trout prep
7	107	72.8	121	3	AAP20028	Sequence of prepro
8	105	71.4	25	3	AAP20198	Sequence of somato
9	105	71.4	25	22	AAB91017	Somatostatin relat

10	105	71.4	28	19	AAWS1859	Somatostatin analo
11	105	71.4	28	20	AAV28703	Mouse somatostatin
12	105	71.4	28	20	AAV24384	Somatostatin pepti
13	105	71.4	28	20	AAV24239	Peptide hormone so
14	105	71.4	28	22	AAV24239	Somatostatin relat
15	105	71.4	28	22	AAV24239	Mammalian somatost
16	105	71.4	28	23	AAU07669	Human somatostatin
17	105	71.4	28	23	AAU07667	Human somatostatin
18	105	71.4	28	23	AAU07667	Human somatostatin
19	105	71.4	110	23	AAE21871	Somatostatin-28 (S
20	105	71.4	110	24	ABG74506	Rat preprosomatost
21	105	71.4	110	24	ABG74506	Rat preprosomatost
22	105	71.4	116	21	AAU07669	Human secreted pro
23	105	71.4	116	24	ABP96313	Human somatostatin
24	105	71.4	140	21	AAV97879	Human somatostatin
25	104	70.7	20	6	AAU0414	Swine duodenum eic
26	104	70.7	27	22	AAU0414	Somatostatin relat
27	104	70.7	28	19	AAWS0950	Somatostatin analo
28	104	70.7	28	22	AAU0414	Somatostatin-28 an
29	101	68.7	28	19	AAWS0816	Somatostatin-28 pe
30	100	68.0	28	3	AAP20130	Somatostatin-28 pe
31	100	68.0	28	3	AAP20131	Somatostatin-28 pe
32	100	68.0	28	19	AAWS0818	Somatostatin-28 an
33	98	66.7	28	3	AAP20197	Sequence of ID-77 an
34	97	66.0	28	3	AAP20125	Somatostatin-28 pe
35	97	66.0	28	19	AAWS0819	Somatostatin analo
36	97	66.0	28	19	AAWS1855	Somatostatin analo
37	97	66.0	28	19	AAWS1688	Somatostatin analo
38	96	65.3	28	4	AAP30058	Radioactively tagg
39	92	62.6	28	19	AAWS0817	Somatostatin-28 an
40	91	61.9	28	3	AAP20126	Somatostatin-28 pe
41	89	60.5	14	22	AAU07665	Rainbow trout soma
42	89	60.5	28	3	AAP20128	Somatostatin-28 an
43	83	56.5	14	7	AAP60190	Somatostatin-28 an
44	83	56.5	36	21	AAV56743	Somatostatin antig
45	83	56.5	54	21	AAV56760	Somatostatin antig

ALIGNMENTS

RESULT 1  
AAU07668  
ID AAU07668 standard; Protein; 111 AA.  
XX AAU07668;  
XX 04-DEC-2001 (first entry)  
XX Rainbow trout preprosomatostatin II (PPSS-II'') polypeptide.  
XX Rainbow trout preprosomatostatin; hypersecretion; PPSS-I;  
PPSS-II'; PPSS-II' endocrine tumour; pituitary gland; glucagonoma; AIDS;  
gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
carcinoid syndrome; cell proliferation; apoptosis; growth hormone;  
glucagon; Alzheimer's disease; immunodeficiency syndrome; neurological disorder; HIV;  
epilepsy; Huntington's disease; Huntington's disease; neuroprotective;  
neoplasia; metastasis; gene therapy; antidiabetic; nootropic; cytostatic;  
anti-human immunodeficiency virus; osteopathic; anticonvulsant.  
XX OS  
XX Oncochrychus mykiss.

Key	Location/Qualifiers
Peptide	1-25
Protein	/note= "Signal peptide"
Protein	/note= "PPSS-II' pre-sequence"
Protein	/note= "Mature PPSS-II'"
Protein	/note= "PPSS-II' pro-sequence"
Protein	/note= "prosomatostatin II'"

FT Cleavage-site 96..97 /note= "Dibasic cleavage site"  
 FT Peptide 98..111 /note= "SS-14 variant peptide"

XX CA325169-A1.

XX 03-JUN-2001.

XX 01-DEC-2000; 2000CA-2325169.

XX 03-DEC-1999; 99US-0168934.

XX (NDSU-) NDSU RES FOUND.

XX Sheridan MA, Moore CA, Kittelson JD;

XX WPI; 2001-425997/46.

XX N-PSDB; AAS12935.

XX New somatostatin polypeptides derived from *Oncorhynchus mykiss*, useful  
 PT for treating diabetes mellitus, acromegaly, gastrinoma, acquired  
 PT immunodeficiency syndrome and neurological disorders -

XX Claim 1; Fig 3; 52pp; English.

XX The invention relates to an *Oncorhynchus mykiss* somatostatin polypeptide  
 CC containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of  
 CC preprosomatostatin II (PPSS-II). The protein sequences and their  
 CC associated polynucleotides are useful for identifying modified  
 CC somatostatin polypeptide which functions as a somatostatin agonist useful  
 CC for research, therapeutics or diagnostics, including medical and  
 CC veterinary applications. The wild-type somatostatin and its modified  
 CC version are useful for treating hypersecretion from endocrine tumours in  
 CC the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g.  
 CC gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage  
 CC through their effects on cell proliferation and apoptosis and as adjuncts  
 CC in the treatment of diabetes mellitus via inhibition of growth hormone  
 CC and glucagon. In addition, dysfunctional somatostatin secretion is  
 CC associated with acquired immunodeficiency syndrome (AIDS) and various  
 CC neurological disorders (e.g. epilepsy, Alzheimer's disease and  
 CC Huntington's disease) and somatostatin antagonists are effective in the  
 CC treatment of such conditions. Nucleic acids encoding the polypeptides are  
 CC useful in gene therapy and fusion peptides can be targeted to neoplasms  
 CC and their metastases, inhibiting the release of their secretory products.  
 CC This sequence represents O. *Mykiss* PPSS-II' protein.  
 CC Note: The features for this sequence are specifically claimed in the  
 CC specification.

XX Sequence 111 AA;

XX Query Match 100.0%; Score 147; DB 22; Length 111;  
 XX Best Local Similarity 100.0%; Pred. No. 2.1e-14;  
 XX Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

XX 1 SVDNLPERRKAGCKNFYKGFSC 25

XX 87 SVDNLPERRKAGCKNFYKGFSC 111

XX RESULT 2

XX AAP20029 standard; Protein; 125 AA.

XX AC AAP20029;

XX 25-MAR-2003 (updated)

XX 16-AUG-2002 (updated)

XX 14-AUG-1992 (first entry)

XX Sequence of preprosomatostatin-2 encoded on pLs2.

XX Somatostatin; growth hormone; peptide hormone; secretion.

XX Lophius americanus.  
 XX Key Location/Qualifiers  
 FH Protein 112..125  
 FT /label= Somatostatin II

XX EP46669-A.

XX 03-MAR-1982.

XX 21-AUG-1981; 81EP-0303825.

XX 25-AUG-1980; 80US-0181046.

XX (REGC) UNIV CALIFORNIA.

XX Hobart P, Crawford R, Pictet RL, Rutter WJ;

XX WPI; 1982-18113E/10.

XX N-PSDB; AAN20034.

XX New somatostatin and precursors - produced by transformed  
 .PT microorganisms

XX Example; Fig 3; 50pp; English.

XX The inventors claim preprosomatostatin-1, preprosomatostatin-1,  
 CC preprosomatostatin-2, preprosomatostatin-2 and somatostatin-2; and DNA  
 CC encoding them. The translation of somatostatin mRNA yields a  
 CC precursor (pro SI) containing a signal peptide which may be  
 CC released during the transit into the endoplasmic reticulum; and the  
 CC resultant precursor (pro SI) is subsequently cleaved to yield SI  
 CC itself. The prepeptide portion of pro SI is probably about 20-25  
 CC bases long. Translation of pro SI predicts the sequence of a 125 AA  
 CC peptide which surprisingly contains a 14 AA sequence at its carboxy  
 CC terminus which differs from SI by only 2 AAs, and is termed  
 CC Somatostatin 12 (S2).  
 CC (Updated on 16-AUG-2002 to add missing OS field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 125 AA;

XX Query Match 93.9%; Score 138; DB 3; Length 125;  
 XX Best Local Similarity 92.0%; Pred. No. 5.5e-13;  
 XX Matches 23; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

XX 1 SVDNLPERRKAGCKNFYKGFSC 25

XX 101 STNLPERRKAGCKNFYKGFSC 125

XX RESULT 3

XX AAU07667

XX ID AAU07667 standard; Protein; 115 AA.

XX AC AAU07667;

XX 04-DEC-2001 (first entry)

XX Rainbow trout preprosomatostatin II (PPSS-II') polypeptide.

XX Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
 KW PPSS-II'; endocrine tumour; pituitary gland; glucagonoma; AIDS;  
 KW gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
 KW carcinoid syndrome; cell proliferation; apoptosis; growth hormone;  
 KW glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV;  
 KW epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective;  
 KW neoplasm; metastasis; gene therapy; antidiabetic; nootropic; cytostatic;  
 KW anti-human immunodeficiency virus; osteopathic; anticonvulsant.  
 XX *Oncorhynchus mykiss*.  
 OS

FH Key Location/Qualifiers  
 FT Peptide 1..25  
 FT Protein /note= "Signal peptide"  
 FT Protein 1..87  
 FT Protein /note= "PPSS-II' pre-sequence"  
 FT Protein 26..115  
 FT Misc-difference 74  
 FT /note= "Mature PPSS-II"  
 FT Peptide 88..101  
 FT /note= "Encoded by CAA"  
 FT Peptide 88..115  
 FT /note= "PPSS-II' pro-sequence"  
 FT Peptide 100..101  
 FT /note= "prosomatostatin II"  
 FT Cleavage-site 102..115  
 FT /note= "Dlbasic cleavage site"  
 FT Peptide /note= "SS-14 variant peptide"  
 T X

CA2325169-A1.

03-JUN-2001.

01-DEC-2000; 2000CA-2325169.

03-DEC-1999; 99US-0168934.

(NDSU-) NDSU RES FOUND.

Sheridan MA, Moore CA, Kittelson JD;

WPI; 2001-425997/46.

N-PSDB; AAS12934.

New somatostatin polypeptides derived from *Oncorhynchus mykiss*, useful for treating diabetes mellitus, acromegaly, gastrinoma, acquired immunodeficiency syndrome and neurological disorders -

Claim 2; Fig 3; 52pp; English.

The invention relates to an *Oncorhynchus mykiss* somatostatin polypeptide containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of preprosomatostatin II (PPSS-II). The protein sequences and their associated polynucleotides are useful for identifying modified somatostatin polypeptide which functions as a somatostatin agonist for research, therapeutics or diagnostics, including medical and veterinary applications. The wild-type somatostatin and its modified version are useful for treating hypersecretion from endocrine tumours in the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g. gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage through their effects on cell proliferation and apoptosis and as adjuncts in the treatment of diabetes mellitus via inhibition of growth hormone and glucagon. In addition, dysfunctional somatostatin secretion is associated with acquired immunodeficiency syndrome (AIDS) and various neurological disorders (e.g. epilepsy, Alzheimer's disease and Huntington's disease) and somatostatin antagonists are effective in the treatment of such conditions. Nucleic acids encoding the polypeptides are useful in gene therapy and fusion peptides can be targeted to neoplasms and their metastases, inhibiting the release of their secretory products. This sequence represents O. Mykiss PPSS-II' protein.

Note: The features for this sequence are specifically claimed in the specification.

SQ Sequence 115 AA;

Query Match 91.28; Score 134; DB 22; Length 115;  
 Best Local Similarity 95.78; Pred. NO. 2e-13;  
 Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 DNLPPRRKAGCKNFYWKFTSC 25  
 :|||||  
 DB 93 NNLPPRRKAGCKNFYWKFTSC 115

RESULT 4  
 AAP61714  
 ID AAP61714 standard; Protein; 28 AA.  
 AC AAP61714;  
 XX  
 DT 25-MAR-2003 (updated)  
 DT 28-JUL-1991 (first entry)  
 XX  
 DE Somatostatin-28 analogue.  
 XX  
 KW Somatostatin-28; insulin-selective; insulinoma.  
 XX  
 OS Synthetic.  
 FH Key Location/Qualifiers  
 FT Misc-difference 23  
 FT /label= Hyl, Lys  
 XX  
 PN EPI73527-A.  
 XX  
 PD 05-MAR-1986.  
 XX  
 PF 16-AUG-1985; 85EP-0305867.  
 XX  
 PR 31-AUG-1984; 84US-0646610.  
 PR 01-APR-1987; 87US-0033295.  
 XX  
 PA (SALK ) SALK INST. BIOLOGICAL STUDIES.  
 XX  
 PI Spiess J, Noe BD;  
 XX  
 DR WPI; 1986-063363/10.  
 XX  
 FT Angler fish somatostatin-28 and analogue and fragment - useful in  
 FT inhibiting insulin secretion in insulinoma.  
 XX  
 PS Claim 4; Page 18; 19pp; English.  
 XX  
 CC The protein sequence is an insulin-selective analogue  
 CC of anglerfish somatostatin-28, which is more potent than  
 CC somatostatin-14 or somatostatin-28 in inhibiting insulin  
 CC secretion for treatment of insulinoma.  
 CC (Updated on 25-MAR-2003 to correct PR field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 XX  
 SQ Sequence 28 AA;  
 Query Match 89.88; Score 132; DB 7; Length 28;  
 Best Local Similarity 88.08; Pred. NO. 9.4e-13;  
 Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 1 SYDNLPPRRKAGCKNFYWKFTSC 25  
 :|||||  
 DB 4 STNNLPPRRKAGCKNFYWKFTSC 28  
 :|||||  
 RESULT 5  
 AAP90989  
 ID AAP90989 standard; peptide; 28 AA.  
 AC AAP90989;  
 XX  
 DT 25-MAR-2003 (updated)  
 DT 08-JUN-1990 (first entry)  
 XX  
 DE Analogue of anglerfish somatostatin 28.  
 XX  
 KW Somatostatin 28; SS-28; analogue; insulin secretion  
 KW inhibitor; insulinoma; gastric acid secretion; thermoregulation.  
 XX  
 OS Anglerfish.  
 XX

FH Key Location/Qualifiers  
 FT Disulfide-bond 17 /note="Bonded to Cys-28"  
 FT Disulfide-bond 28 /note="Bonded to Cys-17"  
 FT Misc-difference 23 /label=Lys, Hyl  
 FT Region 15..28 /note="Also claimed"  
 FT US4816438-A.  
 PN 28-MAR-1989.  
 PD 01-APR-1987; 87US-0033295.  
 XX 01-APR-1987; 87US-0033295.  
 PR 31-AUG-1984; 84US-0646610.  
 XX (SALK ) SALK INST BIOLOGICAL STUDIES.  
 FA Spiess J, Noe BD;  
 XX WPI; 1989-113910/15.  
 XX Angler fish somatostatin-28 and fragments -  
 FT useful in inhibiting insulin secretion and insulinoma  
 FT Claim 1; page 65; 8pp; English.  
 XX It is called ASS-28 because it is an analogue of anglerfish somatostatin  
 CC (SS-28). It is more potent than either somatostatin 14 (SS-14) or SS-28  
 CC at inhibiting insulin secretion for the treatment of insulinoma. The  
 CC 14-residue C-terminal peptide is also claimed (ASS-14). ASS-14 is useful  
 CC for inhibiting insulin secretion by the pancreas. ASS-28 and ASS-28 may  
 CC be useful for decreasing gastric acid secretion and influencing  
 CC thermoregulation. Their reduced linear forms, wherein the disulphide  
 CC bridge is not present and is replaced by H, is also claimed.  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 XX Sequence 28 AA;  
 SQ  
 Query Match 89.88; Score 132; DB 10; Length 28;  
 Best Local Similarity 88.08; Pred. No. 9.4e-13;  
 Matches 22; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 1 SVDNLPERRKAGCKNFYWGFTSC 25  
 DB 4 STNNLPERRKAGCKNFYWGFTSC 28  
 RESULT 6  
 J007666  
 AAU07666 standard; Protein; 114 AA.  
 AAU07666;  
 04-DEC-2001 (first entry)  
 Rainbow trout preprosomatostatin I (PPSS-I) polypeptide.  
 Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
 PPSS-II'; PPSS-III'; endocrine tumour; pituitary gland; glucagonoma; AIDS;  
 gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
 carcinoid syndrome; cell proliferation; apoptosis; growth hormone;  
 glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV;  
 epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective;  
 neoplasia; metastasis; gene therapy; antidiabetic; nootropic; cytostatic;  
 anti-human immunodeficiency virus; osteopathic; anticonvulsant.  
 Oncochrychus mykiss.  
 Key Location/Qualifiers

FT Peptide 1..24 /note="Signal peptide"  
 FT Protein 1..88 /note="PPSS-I pre-sequence"  
 FT Protein 25..114 /note="Mature PPSS-I"  
 FT Peptide 89..100 /note="PPSS-I pro-sequence"  
 FT Peptide 89..114 /note="Prosomatostatin I"  
 FT Cleavage-site 99..100 /note="Bibasic cleavage site"  
 FT Peptide 101..114 /note="SS-14 peptide"  
 CA2325169-A1.  
 03-JUN-2001.  
 01-DEC-2000; 2000CA-2325169.  
 03-DEC-1999; 99US-0168934.  
 (NDSU-) NDSU RES FOUND.  
 Sheridan MA, Moore CA, Kittelson JD;  
 WPI; 2001-425997/46.  
 N-PSDB; AAS12933.  
 New somatostatin polypeptides derived from Oncochrychus mykiss, useful  
 for treating diabetes mellitus, acromegaly, gastrinoma, acquired  
 immunodeficiency syndrome and neurological disorders -  
 Claim 1; Fig 2; 52pp; English.  
 The invention relates to an Oncochrychus mykiss somatostatin polypeptide  
 containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of  
 preprosomatostatin II (PPSS-II). The protein sequences and their  
 associated polypeptides are useful for identifying modified  
 somatostatin polypeptides which functions as a somatostatin agonist useful  
 for research, therapeutics or diagnostics, including medical and  
 veterinary applications. The wild-type somatostatin and its modified  
 version are useful for treating hypersecretion from endocrine tumours in  
 the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g.  
 gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage  
 through their effects on cell proliferation and apoptosis and as adjuncts  
 in the treatment of diabetes mellitus via inhibition of growth hormone  
 and glucagon. In addition, dysfunctional somatostatin secretion is  
 associated with acquired immunodeficiency syndrome (AIDS) and various  
 neurological disorders (e.g. epilepsy, Alzheimer's disease and  
 Huntington's disease) and somatostatin antagonists are effective in the  
 treatment of such conditions. Nucleic acids encoding the polypeptides are  
 useful in gene therapy and fusion peptides can be targeted to neoplasms  
 and their metastases, inhibiting the release of their secretory products.  
 This sequence represents O. Mykiss PPSS-I protein.  
 Note: The features for this sequence are specifically claimed in the  
 specification.  
 SQ Sequence 114 AA;  
 Query Match 72.88; Score 107; DB 22; Length 114;  
 Best Local Similarity 85.78; Pred. No. 2.4e-08;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPERRKAGCKNFYWGFTSC 25  
 DB 94 LAPERRKAGCKNFYWGFTSC 114  
 RESULT 7  
 AAP20028  
 ID AAP20028 standard; Protein; 121 AA.

XX AAP20028;  
 XX 25-MAR-2003 (updated)  
 DT 16-AUG-2002 (updated)  
 DT 14-AUG-1992 (first entry)  
 XX  
 DE Sequence of preprosomatostatin-1 encoded on plasmid.  
 XX  
 XX Somatostatin; growth hormone; peptide hormone; secretion.  
 XX  
 XX Lophius americanus.  
 OS  
 XX Key Location/Qualifiers  
 FH Protein 108..121  
 FT /label= Somatostatin I  
 FT  
 XX N  
 XX EP46669-A.  
 XX  
 XX 03-MAR-1982.  
 XX  
 XX 21-AUG-1981; 81EP-0303825.  
 XX  
 XX 25-AUG-1980; 80US-0181046.  
 XX  
 XX (REGC ) UNIV CALIFORNIA.  
 XX  
 XX Hobart P, Crawford R, Pictet RL, Rutter WJ;  
 XX WPI: 1982-18113E/10.  
 DR N-PSDB; AAM20033.  
 XX  
 XX New somatostatin and precursors - produced by transformed  
 XX microorganisms  
 XX Example; Fig 3; 50pp; English.  
 XX  
 XX The inventors claim preprosomatostatin-1, prosomatostatin-1,  
 CC preprosomatostatin-2, prosomatostatin-2 and somatostatin-2;  
 CC encoding them. The translation of somatostatin mRNA yields a  
 CC precursor (prepro S1) containing a signal peptide which may be  
 CC released during the transit into the endoplasmic reticulum, and the  
 CC resultant precursor (pro S1) is subsequently cleaved to yield S1  
 CC itself. The prepeptide portion of prepro S1 is probably about 20-25  
 CC bases long. Translation of prepro S1 predicts the sequence of a 125 AA  
 CC peptide which surprisingly contains a 14 AA sequence at its carboxy  
 CC terminus which differs from S1 by only 2 AAs, and is termed  
 CC Somatostatin 2 (S2).  
 CC (Updated on 16-AUG-2002 to add missing OS field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 XX  
 XX Sequence 121 AA;  
 Query Match 72.8%; Score 107; DB 3; Length 121;  
 Best Local Similarity 85.7%; Pred. No. 2 6e-08;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 OY 5 LPPRERKAGCNFYWKGTSC 25  
 DB 101 LAPRERKAGCNFYWKGTSC 121  
 XX  
 RESULT 8  
 AAP20198  
 ID AAP20198 standard; Protein; 25 AA.  
 XX  
 XX AAP20198;  
 XX  
 XX 16-AUG-2002 (updated)  
 DT 14-AUG-1992 (first entry)  
 XX  
 XX Sequence of somatostatin-25 analogue.

XX Somatostatin; hormone; growth hormone release; inhibition.  
 XX Mammalia.  
 OS Synthetic.  
 XX  
 XX Key Location/Qualifiers  
 FH Modified-site 1  
 FT /label= H-S  
 FT Disulfide-bond 14..25  
 FT Modified-site 25  
 FT /label= C-OH  
 XX  
 XX US4316891-A.  
 XX  
 XX 23-FEB-1982.  
 XX  
 XX 14-JUN-1980; 80US-0159801.  
 XX  
 XX 14-JUN-1980; 80US-0159801.  
 XX  
 XX (SALK-) SALK INST BIOLOG.  
 XX  
 XX Gullemin RCL, Esch FS, Bohlén P, Brazeau PE, Ling NC;  
 XX WPI: 1982-19801E/10.  
 DR  
 XX Extended somatostatin analogues - with increased inhibition of  
 PT growth hormone release  
 PT  
 XX Claim 6; Column 12; 7pp; English.  
 XX  
 XX The inventors claim a pharmaceutical compsn. which comprises (i)  
 CC synthetic somatostatin-28 (SS-28), SS-25 or (D-Trp(22))-SS-28 and  
 CC (ii) a liq. or solid carrier, and SS-28 derivs. and SS-25 derivs.  
 CC The compsn. and derivs. are more potent than somatostatin in  
 CC inhibiting release of growth hormone; they also inhibit basal and  
 CC stimulated insulin and glucagon secretion. (D-Trp(22))-SS-28  
 CC exhibits very substantial increases in potency w.r.t. inhibition of  
 CC growth hormone secretion.  
 CC (Updated on 16-AUG-2002 to add missing OS field.)  
 XX  
 XX Sequence 25 AA;  
 Query Match 71.4%; Score 105; DB 3; Length 25;  
 Best Local Similarity 81.0%; Pred. No. 1e-08; 2; Indels 0; Gaps 0;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;  
 OY 5 LPPRERKAGCNFYWKGTSC 25  
 DB 5 MAPRERKAGCNFYWKGTSC 25  
 XX  
 RESULT 9  
 AAB91017  
 ID AAB91017 standard; Peptide; 25 AA.  
 XX  
 XX AAB91017;  
 XX  
 XX 22-JUN-2001 (first entry)  
 DT  
 XX Somatostatin related peptide SEQ ID NO:191.  
 DE  
 XX Protection; endogenous therapeutic peptide; peptidase conjugation;  
 KW blood component; modification; succinimide; maleimide group; amino;  
 KW hydroxyl; thiol; hormone; growth factor; neurotransmitter.  
 XX  
 XX Homo sapiens.  
 OS Synthetic.  
 XX  
 XX WO2000069900-A2.  
 PN  
 XX 23-NOV-2000.  
 PD  
 XX

PF 17-MAY-2000; 2000WO-US13576:  
 XX 17-MAY-1999; 98US-0134406.  
 PR 10-SEP-1999; 98US-0153406.  
 PR 15-OCT-1999; 98US-0159783.  
 XX (CONJ-) CONJUCHEM INC.  
 XX Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudau K;  
 XX WPI; 2001-112059/12.  
 XX Modifying and attaching therapeutic peptides to albumin prevents  
 PT -peptidase degradation, useful for increasing length of in vivo activity  
 PT  
 XX Disclosure; Page 252; 733pp; English.  
 XX The present invention describes a modified therapeutic peptide (I)  
 CC comprising a therapeutically active amino acid region (III) and a  
 CC reactive group (II) (e.g. succinimidyl and maleimido groups) attached to  
 CC a less therapeutically active amino acid region (IV), which covalently  
 CC bonds with amino/hydroxyl/thiol groups on blood components to form a  
 CC peptidease stabilised therapeutic peptide composed of 3-50 amino acids.  
 CC (I) are useful for modifying therapeutic peptides e.g. hormones, growth  
 CC factors and neurotransmitters, to protect them from peptidase activity  
 CC in-vivo for the treatment of various disorders. Endogenous therapeutic  
 CC peptides are not suitable as drug candidates as they require frequent  
 CC administration due to rapid degradation by peptidases in the body.  
 CC Modifying and attaching therapeutic peptides to albumin prevents or  
 CC reduces the action of peptidases to increase length of activity (half  
 CC life) and specificity as bonding to large molecules decreases  
 CC intracellular uptake and interference with physiological processes.  
 CC AAB90829 to AAB92441 represent peptides which can be used in the  
 CC exemplification of the present invention.  
 XX  
 SQ Sequence 25 AA;

Query Match 71.4%; Score 105; DB:22; Length 25;  
 Best Local Similarity 81.0%; Pred. No. 1e-08;  
 Matches 17; Conservative 2; Mismatches 0; Gaps 0;  
 Indels 0;  
 QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| : |||||  
 DB 5 MAPRRKAGCKNFYKGTSC 25

RESULT 10  
 AAW51859  
 ID AAW51859 standard; peptide; 28 AA.  
 XX AAW51859;  
 JT 10-SEP-1998 (first entry)  
 XX Somatostatin analogue for the treatment of syndrome X of Reaven.  
 DE Somatostatin analogue; syndrome X of Reaven; hyperinsulinaemia syndrome;  
 XX diazoxide; cyclothiazide; metformin.  
 XX Synthetic.  
 XX WO9810786-A2.  
 XX 19-MAR-1998.  
 XX 10-SEP-1997; 97WO-IL00301.  
 XX 10-OCT-1996; 96IL-0119403.  
 PR 12-SEP-1996; 96IL-0119250.  
 XX (COHE/) COHEN Y.  
 XX

PI Cohen Y;  
 XX WPI; 1998-271636/24.  
 DR Composition for treatment of the risk factors of syndrome X of  
 XX Reaven (hyperinsulinaemia syndrome) comprises somatostatin,  
 PT diazoxide, cyclothiazide (or their analogues) and/or metformin  
 XX  
 PS Claim 42; Page 41; 45pp; English.  
 XX The invention relates to a pharmaceutical composition for treatment of  
 CC the risk factors of syndrome X of Reaven (hyperinsulinaemia syndrome). It  
 CC comprises somatostatin, diazoxide, cyclothiazide (or an analogue of one  
 CC of these) or metformin as the active ingredient. The composition reduces  
 CC resistance to insulin, and so treats and prevents all the associated risk  
 CC factors at once. The risk factors are hypertension, dyslipidaemia  
 CC (raised triglyceride and LDL levels with reduced HDL levels), shorter  
 CC coagulation time due to increased Plasminogen Activator Inhibitor-1  
 CC levels, core obesity, glucose intolerance hyperinsulinaemia. The  
 CC composition reduces the incidence of ischaemic heart disease,  
 CC cerebrovascular disorders, intermittent claudication, ischaemic bowel  
 CC disease, impotence due to peripheral vascular disease, hypercoagulation  
 CC (e.g. renal vein thrombosis), obesity and glucose intolerance. The  
 CC present sequence represents a specifically claimed somatostatin analogue.  
 XX  
 SQ Sequence 28 AA;

Query Match 71.4%; Score 105; DB 19; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 1.1e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| : |||||  
 DB 8 MAPRRKAGCKNFYKGTSC 28

RESULT 11  
 AAY28703  
 ID AAY28703 standard; peptide; 28 AA.  
 XX AAY28703;  
 XX 07-OCT-1999 (first entry)  
 XX Mouse somatostatin SS-28 hormone.  
 DE Mouse somatostatin SS-28 hormone; growth hormone; insulin; glucagon;  
 XX thyroid stimulating hormone; octreotide; cell-based delivery of insulin;  
 KW glucose-stimulated insulin secretion; SSTRV; somatostatin receptor;  
 KW mouse somatostatin receptor type V gene; diabetes.  
 XX Mus musculus.  
 OS WO9935242-A1.  
 XX 15-JUL-1999.  
 XX 11-JAN-1999; 99WO-US00633.  
 XX 03-JUN-1998; 98US-0087848.  
 PR 12-JAN-1998; 98US-0071193.  
 PR 12-JAN-1998; 98US-0071209.  
 PR 12-JAN-1998; 98US-0072556.  
 PR 03-JUN-1998; 98US-0087821.  
 XX (BETA-) BETAGENE INC.  
 XX Clark SA, Quaade C;  
 XX WPI; 1999-444195/37.  
 XX New defined medium for culture of neuroendocrine cells, e.g. of  
 PT insulin-secreting cells

XX Example 8; Page 143; 312pp; English.  
 XX The present sequence is a mouse somatostatin (SS-28) hormone which  
 CC was found to inhibit the release of growth hormone, thyroid stimulating  
 CC hormone, insulin and glucagon. In addition, SS-28 and its analogue  
 CC Octreotide may inhibit growth of some tumours. The hormone was  
 CC used to study its effect on glucose-stimulated insulin secretion in  
 CC high expressing and non-expressing clones of mouse somatostatin  
 CC receptor, type V gene (SSRV). The insulin secretion was highly inhibited  
 CC in the high expressing clone as compared to the non-expressing clone  
 CC because the high expressing clone showed high sensitivity to  
 CC somatostatin. The hormone effectively inhibits insulin secretion in the  
 CC absence of glucose. The somatostatin receptor can be introduced in cell  
 CC lines, used in cell-based delivery of insulin for treating diabetes, for  
 CC precise regulation of insulin release.

3 Sequence 28 AA;  
 Query Match 71.4%; Score 105; DB 20; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 1.1e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| |||||  
 Db 8 MAPRRKAGCKNFYKGTSC 28

RESULT 12  
 AAY24384  
 ID AAY24384 standard; peptide; 28 AA.  
 XX  
 AC AAY24384;

DT 20-SEP-1999 (first entry)  
 DE Somatostatin peptide hormone SS-28.

KW Glucagon-like peptide I receptor; GLP-1 receptor; drug screening;  
 KW secretory function; immortalised neuroendocrine secretory cell;  
 KW regulation; diabetes; insulin secretion; neuroendocrine-based disorder;  
 KW Parkinson's disease; athyrotic cretinism; Addison's disease.

OS Mus musculus.  
 XX WO9935495-A2.

XX 15-JUL-1999.

XX 11-JAN-1999; 99WO-US00551.

XX 03-JUN-1998; 98US-0087848.

XX 12-JAN-1998; 98US-0071193.

XX 12-JAN-1998; 98US-0071209.

XX 12-JAN-1998; 98US-0072556.

XX 03-JUN-1998; 98US-0087821.

XX (BETA-) BETAGENE INC.

XX Clark SA, Quade C, Thigpen AE;

XX WPI; 1999-430454/36.

XX New modulators of secretory function, used to control peptide  
 PT secretion from cells in vivo or in vitro, specifically for treating  
 PT diabetes

XX Example 8; Page 153-154; 309pp; English.

XX The present invention describes a method for identifying modulators (I)  
 CC of secretory function by treating an immortalised cell, having a stable  
 CC secretory function, with a test compound and detecting any change in  
 CC secretion caused by the compound. (I) are used to control secretion of

CC polypeptides from cells, in vivo or in vitro. Specifically they are used  
 CC for treating or preventing diabetes by regulation of insulin secretion,  
 CC but can also be used in cases of other neuroendocrine-based disorders  
 CC such as Parkinson's disease, athyrotic cretinism and Addison's disease.  
 CC The method uses engineered, immortalised cells that are available in  
 CC large amounts, with a stable and predictable phenotype. They allow  
 CC screening to be performed in vivo. The present sequence represents a  
 CC somatostatin peptide hormone SS-28 used in an example from the present  
 CC invention.

SQ Sequence 28 AA;

Query Match 71.4%; Score 105; DB 20; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 1.1e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| |||||  
 Db 8 MAPRRKAGCKNFYKGTSC 28

RESULT 13  
 AAY24239  
 ID AAY24239 standard; peptide; 28 AA.  
 XX  
 AC AAY24239;

DT 15-SEP-1999 (first entry)  
 DE Peptide hormone somatostatin SS-28.

KW Glucagon-like peptide I receptor; GLP-1; regulation; secretion;  
 KW neuroendocrine cell line; glycaemic sensing mechanism; glucose;  
 KW genetic engineering; hypoglycaemia; diabetes.

OS Synthetic.

XX WO9935255-A2.

XX 15-JUL-1999.

XX 11-JAN-1999; 99WO-US00631.

XX 03-JUN-1998; 98US-0087848.

XX 12-JAN-1998; 98US-0071193.

XX 12-JAN-1998; 98US-0071209.

XX 12-JAN-1998; 98US-0072556.

XX 03-JUN-1998; 98US-0087821.

XX (BETA-) BETAGENE INC.

XX Clark SA, Thigpen AE;

XX WPI; 1999-419351/35.

XX New immortalized neuroendocrine cells that stably secrete  
 PT polypeptide, particularly used to treat diabetes and hypoglycaemia

XX Example 8; Page 148; 318pp; English.

XX The present invention describes immortalized neuroendocrine cells (A)  
 CC that stably secrete a polypeptide hormone (I) contain an expression  
 CC region that includes a transgene (TG), linked to a promoter functional  
 CC in eukaryotic cells, such that expression of TG increases sensitivity  
 CC of the cells to a modulator of (I) secretion. (A) are specifically  
 CC used, by transplantation, to treat diabetes or hypoglycaemia (especially  
 CC where associated with insulin therapy) but more generally are used to  
 CC express, in vivo, a wide range of therapeutic hormones, enzymes,  
 CC amidated proteins and growth factors. Also engineered neuroendocrine  
 CC cells are used to identify new therapeutic agents or drug targets.  
 CC (A) have a stable phenotype and particularly inducible glucagon  
 CC secretion and glucose counter-regulatory capacities, i.e. they balance  
 CC the hyperglycaemic effects of beta-cell loss and the hypoglycaemic



CC effects of administered insulin. Since they are of human origin, they  
 CC are less likely to suffer immune rejection than xenografts. The present  
 CC sequence represents the peptide hormone somatostatin SS-28 used in an  
 CC example from the present invention.

SQ Sequence 28 AA;  
 Query Match 71.4%; Score 105; DB 20; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 1.1e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| : |||||  
 DB 8 MAPRRKAGCKNFYKGTSC 28

RESULT 14  
 AAB91018  
 ID AAB91018 standard; Peptide; 28 AA.

XX AC AAB91018;  
 XX DT 22-JUN-2001 (first entry)

XX E Somatostatin related peptide SEQ ID NO:192.

XX KW Protection; endogenous therapeutic peptide; peptidase; conjugation;  
 XX blood component; modification; succinimide; maleimide group; amino;  
 XX hydroxyl; thiol; hormone; growth factor; neurotransmitter.

XX OS Homo sapiens.  
 XX OS Synthetic.

XX PN WO200069900-A2.

XX PD 23-NOV-2000.

XX PF 17-MAY-2000; 2000WO-US13576.

XX PR 17-MAY-1999; 99US-0134406.

XX PR 10-SEP-1999; 99US-0153406.

XX PR 15-OCT-1999; 99US-0159783.

XX PA (CONJ-) CONJUCHEM INC.

XX PI Bridon DP, Ezrin AM, Milner PG, Holmes DL, Thibaudeau K;

XX WPI; 2001-112059/12.

XX PT Modifying and attaching therapeutic peptides to albumin prevents  
 XX peptidase degradation, useful for increasing length of in vivo activity

XX PS Disclosure; Page 252; 733pp; English.

XX CC The present invention describes a modified therapeutic peptide (I)  
 XX comprising a therapeutically active amino acid region (III) and a  
 XX reactive group (II) (e.g. succinimide and maleimide groups) attached to  
 XX a less therapeutically active amino acid region (IV), which covalently  
 XX bonds with amino(hydroxyl)thiol groups on blood components to form a  
 XX peptidase stabilised therapeutic peptide composed of 3-50 amino acids.  
 XX (I) are useful for modifying therapeutic peptides to increase length of  
 XX factors and neurotransmitters, to protect them from peptidase activity  
 XX in vivo for the treatment of various disorders. Endogenous therapeutic  
 XX peptides are not suitable as drug candidates as they require frequent  
 XX administration due to rapid degradation by peptidases in the body.  
 XX Modifying and attaching therapeutic peptides to albumin prevents or  
 XX reduces the action of peptidases to increase length of activity (half  
 XX life) and specificity as bonding to large molecules decreases  
 XX intracellular uptake and interference with physiological processes.  
 XX AAB90829 to AAB92441 represent peptides which can be used in the  
 XX exemplification of the present invention.

SQ Sequence 28 AA;

Query Match 71.4%; Score 105; DB 22; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 1.1e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 : ||||| ||||| : |||||  
 DB 8 MAPRRKAGCKNFYKGTSC 28

RESULT 15

AAU07669

ID AAU07669 standard; Peptide; 28 AA.

XX AC AAU07669;

XX DT 04-DEC-2001 (first entry)

XX DE Mammalian somatostatin 28 (SS-28) peptide sequence.

XX KW Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
 XX PPSS-II; PPSS-III; endocrine tumour; pituitary gland; glucagonoma; AIDS;  
 XX gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
 XX carcinoid syndrome; cell proliferation; apoptosis; growth hormone; SS-28;  
 XX glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV;  
 XX epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective;  
 XX neoplasm; metastasis; gene therapy; antidiabetic; tropic; cytostatic;  
 XX anti-human immunodeficiency virus; osteopathic; anticonvulsant.

XX OS Mammalia sp.

XX PN CA2325169-A1.

XX PD 03-JUN-2001.

XX PF 01-DEC-2000; 2000CA-2325169.

XX PR 03-DEC-1999; 99US-0168934.

XX PA (NDSU-) NDSU RES FOUND.

XX PI Sheridan MA, Moore CA, Kittelson JD;

XX WPI; 2001-425997/46.

XX CC New somatostatin polypeptides derived from *Oncorhynchus mykiss*, useful  
 XX for treating diabetes mellitus, acromegaly, gastrinoma, acquired  
 XX immunodeficiency syndrome and neurological disorders -

XX PS Example 5; Fig 6; 52pp; English.

XX CC The invention relates to an *Oncorhynchus mykiss* somatostatin polypeptide  
 XX containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of  
 XX preprosomatostatin II (PPSS-II). The protein sequences and their  
 XX associated polynucleotides are useful for identifying modified  
 XX somatostatin polypeptides which function as a somatostatin agonist  
 XX for research, therapeutics or diagnostics, including medical and  
 XX veterinary applications. The wild-type somatostatin and its modified  
 XX version are useful for treating hypersecretion from endocrine tumours in  
 XX the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g.  
 XX gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage  
 XX through their effects on cell proliferation and apoptosis and as adjuncts  
 XX in the treatment of diabetes mellitus via inhibition of growth hormone  
 XX and glucagon. In addition, dysfunctional somatostatin secretion is  
 XX associated with acquired immunodeficiency syndrome (AIDS) and various  
 XX neurological disorders (e.g. epilepsy, Alzheimer's disease and  
 XX Huntington's disease) and somatostatin antagonists are effective in the  
 XX treatment of such conditions. Nucleic acids encoding the polypeptides are  
 XX useful in gene therapy and fusion peptides can be targeted to neoplasms  
 XX and their metastases, inhibiting the release of their secretory products.  
 XX This sequence represents the mammalian somatostatin 28 (SS-28) peptide.

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Page 9

SQ Sequence 28 AA;

Query Match 71.4%; Score 105; DB 22; Length 28;  
Best Local Similarity 81.0%; Pred. NO. 1.1e-08;  
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYWKGTSC 25  
: ||||| ||||| || |||||  
Db 8 MAPRRKAGCKNFFWKTSC 28

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Job time: 46.7949 secs

Wed Aug 13 16:15:28 2003

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OM protein - protein search, using sw model  
Run on: August 13, 2003, 14:49:47 ; Search time 24.359 Seconds  
(without alignments)  
134.451 Million cell updates/sec

Title: US-09-727-739b-16  
Perfect score: 147  
Sequence: 1 SYDNLPPRRKAGCKNFYWGFTSC 25

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 492763 seqs, 131003257 residues 492763  
Total number of hits satisfying chosen parameters:

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Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

- Database : Published Applications AA:\*
- 1: /cgn2\_6/ptodata/2/pubaa/US07\_PUBCOMB.pep.\*
  - 2: /cgn2\_6/ptodata/2/pubaa/PCT\_NEW\_PUB.pep.\*
  - 3: /cgn2\_6/ptodata/2/pubaa/US06\_NEW\_PUB.pep.\*
  - 4: /cgn2\_6/ptodata/2/pubaa/US06\_PUBCOMB.pep.\*
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  - 10: /cgn2\_6/ptodata/2/pubaa/US09B\_PUBCOMB.pep.\*
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  - 17: /cgn2\_6/ptodata/2/pubaa/US60\_NEW\_PUB.pep.\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	105	71.4	110	9 US-09-766-396-3	Sequence 3, Appli
2	105	71.4	110	14 US-10-062-375-3	Sequence 3, Appli
3	105	71.4	140	9 US-09-280-030-64	Sequence 64, Appl
4	83	56.5	200	14 US-10-101-487-53	Sequence 53, Appl
5	78	53.1	15	14 US-10-101-487-52	Sequence 52, Appl
6	77	52.4	14	10 US-09-316-505-2	Sequence 2, Appli
7	77	52.4	14	12 US-10-224-640-2	Sequence 2, Appli
8	77	52.4	14	12 US-10-251-703-18	Sequence 18, Appl
9	77	52.4	14	14 US-10-101-487-37	Sequence 37, Appl
10	77	52.4	29	9 US-09-766-396-7	Sequence 7, Appli
11	77	52.4	29	14 US-10-062-375-7	Sequence 7, Appli
12	77	52.4	85	9 US-09-766-396-6	Sequence 6, Appli
13	77	52.4	85	14 US-10-062-375-6	Sequence 6, Appli
14	77	52.4	112	9 US-09-766-396-2	Sequence 2, Appli
15	77	52.4	112	12 US-10-335-125-3	Sequence 3, Appli

16	77	52.4	112	14	US-10-062-375-2	Sequence 2, Appli
17	74	50.3	29	9	US-09-766-396-11	Sequence 11, Appl
18	74	50.3	29	14	US-10-062-375-11	Sequence 11, Appl
19	74	50.3	84	9	US-09-766-396-10	Sequence 10, Appl
20	74	50.3	84	14	US-10-062-375-10	Sequence 10, Appl
21	74	50.3	109	9	US-09-766-396-5	Sequence 5, Appli
22	74	50.3	109	14	US-10-062-375-5	Sequence 5, Appli
23	65	44.2	29	15	US-10-197-954-41	Sequence 41, Appl
24	65	44.2	105	9	US-09-766-396-26	Sequence 26, Appl
25	65	44.2	105	12	US-10-335-125-2	Sequence 2, Appli
26	65	44.2	105	14	US-10-062-375-2	Sequence 26, Appl
27	65	44.2	155	12	US-10-137-870-380	Sequence 380, App
28	65	44.2	155	12	US-10-140-018-380	Sequence 380, App
29	65	44.2	155	12	US-10-140-021-380	Sequence 380, App
30	65	44.2	155	12	US-10-140-274-380	Sequence 380, App
31	65	44.2	155	12	US-10-140-471-380	Sequence 380, App
32	65	44.2	155	12	US-10-140-807-380	Sequence 380, App
33	65	44.2	155	12	US-10-140-922-380	Sequence 380, App
34	65	44.2	155	12	US-10-140-924-380	Sequence 380, App
35	65	44.2	155	12	US-10-140-928-380	Sequence 380, App
36	65	44.2	155	12	US-10-141-698-380	Sequence 380, App
37	65	44.2	155	12	US-10-141-702-380	Sequence 380, App
38	65	44.2	155	12	US-10-141-704-380	Sequence 380, App
39	65	44.2	155	12	US-10-142-421-380	Sequence 380, App
40	65	44.2	155	12	US-10-142-722-380	Sequence 380, App
41	65	44.2	155	12	US-10-142-732-380	Sequence 380, App
42	65	44.2	155	12	US-10-143-033-380	Sequence 380, App
43	65	44.2	155	12	US-10-143-038-380	Sequence 380, App
44	65	44.2	155	12	US-10-145-628-380	Sequence 380, App
45	65	44.2	155	12	US-10-145-631-380	Sequence 380, App

ALIGNMENTS

RESULT 1  
US-09-766-396-3  
Sequence 3, Application US/09766396  
Patent No. US20020013456A1  
GENERAL INFORMATION  
APPLICANT: Sutcliffe, Gregor J.  
de Lecea, George R.  
Siggens, Steven J.  
Heniksen, Steven J.  
TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES, COMPOSITIONS AND METHODS  
NUMBER OF SEQUENCES: 26  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE  
STREET: 10666 NO. US20020013456A1th Torrey Pines Road, TPC-8  
CITY: La Jolla  
STATE: California  
COUNTRY: US  
ZIP: 92037  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentio Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/766,396  
FILING DATE: 18-Jan-2001  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/857,389  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Schmonees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638

;; INFORMATION FOR SEQ ID NO: 3:  
;; SEQUENCE CHARACTERISTICS:  
;; LENGTH: 110 amino acids  
;; TYPE: amino acid  
;; TOPOLOGY: linear  
;; MOLECULE TYPE: protein  
;; FRAGMENT TYPE: C-terminal  
;; SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
US-09-766-396-3

Query Match 71.4%; Score 105; DB 9; Length 110;  
Best Local Similarity 81.0%; Pred. No. 5.4e-08;  
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
DB 90 MAPRRKAGCKNFYKGTSC 110

RESULT 2  
US-10-062-375-3  
; Sequence 3, Application US/10062375  
; Publication No. US20020133000A1  
; GENERAL INFORMATION:  
; APPLICANT: Sutcliffe, Gregor J.  
; de Lecea, Luis  
; Higgins, George R.  
; Heniksen, Steven J.  
; TITLE OF INVENTION: COMPOSITIONS AND METHODS,  
; NEUROPEPTIDES,  
; CORRESPONDENCE ADDRES:  
; NUMBER OF SEQUENCES: 26  
; ADDRESS: THE SCRIPPS RESEARCH INSTITUTE  
; STREET: 10666 No. US20020133000A1th Torrey Pines Road, TPC-8  
; CITY: La Jolla  
; STATE: California  
; COUNTRY: US  
; ZIP: 92037  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/10/062,375  
; FILING DATE: 30-Jan-2002  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/08/857,389  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Schmonsees, William  
; REGISTRATION NUMBER: 31,796  
; REFERENCE/DOCKET NUMBER: 22908-0002  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 324-7041  
; TELEFAX: (415) 324-0638  
; INFORMATION FOR SEQ ID NO: 3:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 110 amino acids  
; TYPE: amino acid  
; TOPOLOGY: linear  
; MOLECULE TYPE: protein  
; FRAGMENT TYPE: C-terminal  
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
US-10-062-375-3

Query Match 71.4%; Score 105; DB 14; Length 110;  
Best Local Similarity 81.0%; Pred. No. 5.4e-08;  
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
DB 90 MAPRRKAGCKNFYKGTSC 110

;; INFORMATION FOR SEQ ID NO: 3:  
;; SEQUENCE CHARACTERISTICS:  
;; LENGTH: 110 amino acids  
;; TYPE: amino acid  
;; TOPOLOGY: linear  
;; MOLECULE TYPE: protein  
;; FRAGMENT TYPE: C-terminal  
;; SEQUENCE DESCRIPTION: SEQ ID NO: 3:  
US-09-766-396-3

Query Match 71.4%; Score 105; DB 9; Length 110;  
Best Local Similarity 81.0%; Pred. No. 5.4e-08;  
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
DB 90 MAPRRKAGCKNFYKGTSC 110

RESULT 3  
US-09-280-030-64  
; Sequence 64, Application US/09280030A  
; Patent No. US20010021515A1  
; GENERAL INFORMATION:  
; APPLICANT: Sato, Seiji  
; APPLICANT: Higashikuni, Naohiko  
; APPLICANT: Kudo, Toshiyuki  
; APPLICANT: Kondo, Masaaki  
; TITLE OF INVENTION: DNAs ENCODING NEW FUSION PROTEINS AND PROCESSES FOR  
; PREPARING USEFUL POLYPEPTIDES THROUGH EXPRESSION OF THE  
; TITLE OF INVENTION: DNAs  
; FILE REFERENCE: 382.1026  
; CURRENT APPLICATION NUMBER: US/09/280,030A  
; CURRENT FILING DATE: 1999-03-26  
; EARLIER APPLICATION NUMBER: JP10-87339/1998  
; EARLIER FILING DATE: 1998-03-31  
; NUMBER OF SEQ ID NOS: 66  
; SOFTWARE: Patent In Ver. 2.0  
; SEQ ID NO 64  
; LENGTH: 140  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Designated is  
; OTHER INFORMATION: an amino acid sequence of  
; OTHER INFORMATION: MWSP-MWMP20-(His)6-EGF-TGV-Somatostatin 28  
US-09-280-030-64

Query Match 71.4%; Score 105; DB 9; Length 140;  
Best Local Similarity 81.0%; Pred. No. 6.9e-08;  
Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
DB 120 MAPRRKAGCKNFYKGTSC 140

RESULT 4  
US-10-101-487-53  
; Sequence 53, Application US/10101487  
; Publication No. US20020169125A1  
; GENERAL INFORMATION:  
; APPLICANT: LEUNG, DAVID W.  
; APPLICANT: BERGMAN, PHILIP A.  
; APPLICANT: LOFQUIST, ALAN  
; APPLICANT: PIETZ, GREGORY E.  
; APPLICANT: TOMPKINS, CHRISTOPHER K.  
; APPLICANT: WAGGONER JR., DAVID W.  
; TITLE OF INVENTION: RECOMBINANT PRODUCTION OF POLYANIONIC POLYMERS AND USES  
; THEREOF  
; FILE REFERENCE: 077319/0329  
; CURRENT APPLICATION NUMBER: US/10/101,487  
; CURRENT FILING DATE: 2002-03-20  
; PRIOR APPLICATION NUMBER: 60/277,705  
; PRIOR FILING DATE: 2001-03-21  
; NUMBER OF SEQ ID NOS: 116  
; SOFTWARE: Patent In Ver. 2.1  
; SEQ ID NO 53  
; LENGTH: 200  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic fusion  
; OTHER INFORMATION: protein  
US-10-101-487-53

Query Match 56.5%; Score 83; DB 14; Length 200;  
Best Local Similarity 76.5%; Pred. No. 0.00017;  
Matches 13; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 9 EKAGCKNFYKGTSC 25  
|.....|  
DB 184 EEAGCKNFYKGTSC 200

## RESULT 5

US-101-487-52  
; Sequence 52, Application US/10101487  
; Publication No. US20020169125A1  
; GENERAL INFORMATION:  
; APPLICANT: LEUNG, DAVID W.  
; APPLICANT: BERGMAN, PHILIP A.  
; APPLICANT: LOFQUIST, ALAN  
; APPLICANT: PIETZ, GREGORY E.  
; APPLICANT: TOMPKINS, CHRISTOPHER K.  
; APPLICANT: WAGGONER JR., DAVID W.  
; TITLE OF INVENTION: RECOMBINANT PRODUCTION OF POLYANIONIC POLYMERS AND USES  
; FILE REFERENCE: THEREOF  
; CURRENT APPLICATION NUMBER: US/101,487  
; PRIOR FILING DATE: 2002-03-20  
; PRIOR APPLICATION NUMBER: 60/277,705  
; NUMBER OF SEQ ID NOS: 116  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 52  
; LENGTH: 15  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
US-101-487-52

Query Match 53.1%; Score 78; DB 14; Length 15;  
Best Local Similarity 80.0%; Pred. No. 6.8e-05;  
Matches 12; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 11 KAGCKNFYKGTSC 25  
|.....|  
DB 1 EAGCKNFYKGTSC 15

## RESULT 6

US-09-316-505-2  
; Sequence 2, Application US/09316505  
; Patent No. US20020111461A1  
; GENERAL INFORMATION:  
; APPLICANT: Burnier, John P.  
; APPLICANT: Clark, Ross G.  
; APPLICANT: Elias, Kathleen A.  
; APPLICANT: McDowell, Robert S.  
; APPLICANT: Rawson, Thomas E.  
; APPLICANT: Somers, Todd C.  
; APPLICANT: Stanley, Mark S.  
; TITLE OF INVENTION: LOW MOLECULAR WEIGHT PEPTIDOMIMETIC GROWTH HORMONE SECRETAGOGUES  
; FILE REFERENCE: P0850D2  
; CURRENT APPLICATION NUMBER: US/09/316,505  
; PRIOR FILING DATE: 1999-05-21  
; PRIOR APPLICATION NUMBER: US 09/057,074  
; PRIOR FILING DATE: 1998-04-08  
; NUMBER OF SEQ ID NOS: 2  
; SEQ ID NO 2  
; LENGTH: 14  
; TYPE: PRT  
; ORGANISM: Homosapiens  
US-09-316-505-2

Query Match 52.4%; Score 77; DB 10; Length 14;  
Best Local Similarity 85.7%; Pred. No. 9e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 12 AGCKNFYKGTSC 25

DB 1 AGCKNFYKGTSC 14  
|.....|

## RESULT 7

US-10-224-640-2  
; Sequence 2, Application US/10224640  
; Publication No. US20030139348A1  
; GENERAL INFORMATION:  
; APPLICANT: Burnier, John P.  
; APPLICANT: Clark, Ross G.  
; APPLICANT: Elias, Kathleen A.  
; APPLICANT: McDowell, Robert S.  
; APPLICANT: Rawson, Thomas E.  
; APPLICANT: Somers, Todd C.  
; APPLICANT: Stanley, Mark S.  
; TITLE OF INVENTION: LOW MOLECULAR WEIGHT PEPTIDOMIMETIC GROWTH HORMONE SECRETAGOGUES  
; FILE REFERENCE: P0850D2C1  
; CURRENT APPLICATION NUMBER: US/10/224,640  
; CURRENT FILING DATE: 2002-08-19  
; PRIOR APPLICATION NUMBER: US 09/057,074  
; PRIOR FILING DATE: 1998-04-08  
; PRIOR APPLICATION NUMBER: US 08/340,767  
; PRIOR FILING DATE: 1994-11-16  
; PRIOR APPLICATION NUMBER: US 09/316,505  
; PRIOR FILING DATE: 1999-05-21  
; NUMBER OF SEQ ID NOS: 2  
; SEQ ID NO 2  
; LENGTH: 14  
; TYPE: PRT  
; ORGANISM: Homosapiens  
US-10-224-640-2

Query Match 52.4%; Score 77; DB 12; Length 14;  
Best Local Similarity 85.7%; Pred. No. 9e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 12 AGCKNFYKGTSC 25  
|.....|  
DB 1 AGCKNFYKGTSC 14

## RESULT 8

US-10-251-703-18  
; Sequence 18, Application US/10251703  
; Publication No. US2003014849A1  
; GENERAL INFORMATION:  
; APPLICANT: Kuliopulos, Athan  
; APPLICANT: Covic, Lidija  
; TITLE OF INVENTION: G Protein Coupled Receptor Agonists and Antagonists and  
; TITLE OF INVENTION: Methods of Activating and Inhibiting G Protein Coupled  
; TITLE OF INVENTION: Receptors using the Same  
; FILE REFERENCE: NEMC-215 CIP  
; CURRENT APPLICATION NUMBER: US/10/251,703  
; CURRENT FILING DATE: 2002-09-20  
; PRIOR APPLICATION NUMBER: 09/841,091  
; PRIOR FILING DATE: 2001-04-23  
; PRIOR APPLICATION NUMBER: 60/198,993  
; PRIOR FILING DATE: 2000-04-21  
; NUMBER OF SEQ ID NOS: 41  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 18  
; LENGTH: 14  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Extracellular  
; OTHER INFORMATION: Agonist Peptide Sequence  
US-10-251-703-18

Query Match 52.4%; Score 77; DB 12; Length 14;  
Best Local Similarity 85.7%; Pred. No. 9e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;



SEQUENCE DESCRIPTION: SEQ ID NO: 7:  
US-10-062-375-7

Query Match 52.4%; Score 77; DB 14; Length 29;  
Best Local Similarity 60.0%; Pred. No. 0.00019;  
Matches 12; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 6 PPRERKAGCKNFYKGFSSC 25  
||| | ||||| ||| | |||  
DB 9 PPHRDKKPKCNFFWKFSSC 28

## RESULT 12

US-09-766-396-6  
Sequence 6, Application US/09766396  
Patent No. US20020013456A1

## GENERAL INFORMATION:

APPLICANT: Sutcliffe, Gregor J.  
de Lecea, Luis  
Siggins, George R.  
Henriksen, Steven J.

TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES,  
COMPOSITIONS AND METHODS

NUMBER OF SEQUENCES: 26

CORRESPONDENCE ADDRESS:

ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE

STREET: 10666 No. US20020013456A1th Torrey Pines Road, TPC-8

CITY: La Jolla

STATE: California

COUNTRY: US

ZIP: 92037

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/09/766,396

FILING DATE: 18-Jan-2001

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/857,389

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Schmonsees, William

REGISTRATION NUMBER: 31,796

REFERENCE/DOCKET NUMBER: 22908-0002

TELECOMMUNICATION INFORMATION:

TELEPHONE: (415) 324-7041

TELEFAX: (415) 324-0638

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 85 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: protein

FRAGMENT TYPE: C-terminal

SEQUENCE DESCRIPTION: SEQ ID NO: 6:

US-09-766-396-6

Query Match 52.4%; Score 77; DB 9; Length 85;  
Best Local Similarity 60.0%; Pred. No. 0.00054;  
Matches 12; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 6 PPRERKAGCKNFYKGFSSC 25  
||| | ||||| ||| | |||  
DB 65 PPHRDKKPKCNFFWKFSSC 84

## RESULT 13

US-10-062-375-6  
Sequence 6, Application US/10062375  
Publication No. US20020133000A1

## GENERAL INFORMATION:

APPLICANT: Sutcliffe, Gregor J.  
de Lecea, Luis  
Siggins, George R.  
Henriksen, Steven J.

TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES,  
COMPOSITIONS AND METHODS

NUMBER OF SEQUENCES: 26

CORRESPONDENCE ADDRESS:

ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE

STREET: 10666 No. US20020133000A1th Torrey Pines Road, TPC-8

CITY: La Jolla

STATE: California

COUNTRY: US

ZIP: 92037

## COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/10/062,375

FILING DATE: 30-Jan-2002

CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US/08/857,389

FILING DATE: <Unknown>

ATTORNEY/AGENT INFORMATION:

NAME: Schmonsees, William

REGISTRATION NUMBER: 31,796

REFERENCE/DOCKET NUMBER: 22908-0002

TELECOMMUNICATION INFORMATION:

TELEPHONE: (415) 324-7041

TELEFAX: (415) 324-0638

INFORMATION FOR SEQ ID NO: 6:

SEQUENCE CHARACTERISTICS:

LENGTH: 85 amino acids

TYPE: amino acid

TOPOLOGY: linear

MOLECULE TYPE: Protein

FRAGMENT TYPE: C-terminal

SEQUENCE DESCRIPTION: SEQ ID NO: 6:

US-10-062-375-6

Query Match 52.4%; Score 77; DB 14; Length 85;  
Best Local Similarity 60.0%; Pred. No. 0.00054;  
Matches 12; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 6 PPRERKAGCKNFYKGFSSC 25  
||| | ||||| ||| | |||  
DB 65 PPHRDKKPKCNFFWKFSSC 84

## RESULT 14

US-09-766-396-2  
Sequence 2, Application US/09766396  
Patent No. US20020013456A1

## GENERAL INFORMATION:

APPLICANT: Sutcliffe, Gregor J.  
de Lecea, Luis  
Siggins, George R.  
Henriksen, Steven J.

TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES,  
COMPOSITIONS AND METHODS

NUMBER OF SEQUENCES: 26

CORRESPONDENCE ADDRESS:

ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE

STREET: 10666 No. US20020013456A1th Torrey Pines Road, TPC-8

CITY: La Jolla

STATE: California

COUNTRY: US

ZIP: 92037

## COMPUTER READABLE FORM:

Job time : 25.359 secs

MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC Compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: PatentIn Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/766,396  
FILING DATE: 18-Jan-2001  
CLASSIFICATION: <Unknown>  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/857,389  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Schmonsees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638  
INFORMATION FOR SEQ ID NO: 2:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 112 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
SEQUENCE DESCRIPTION: SEQ ID NO: 2:  
US-09-766-396-2

Query Match 52.4%; Score 77; DB 9; Length 112;  
Best Local Similarity 60.0%; Pred. No. 0.00071;  
Matches 12; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 6 PPRERKAGCKNFYWKFTSC 25  
DB 92 PPRDKKPCNFFWKTFSSC 111

RESULT 15  
US-10-335-125-3  
Sequence 3, Application US/10335125.  
Publication No. US20030148355A1  
GENERAL INFORMATION:  
APPLICANT: Olsen, Henrik S.  
TITLE OF INVENTION: CORTISTATIN POLYPEPTIDES  
FILE REFERENCE: 1488 0430003  
CURRENT APPLICATION NUMBER: US/10/335,125  
CURRENT FILING DATE: 2003-01-02  
PRIOR APPLICATION NUMBER: US/09/775,827A  
PRIOR FILING DATE: 2000-11-28  
PRIOR APPLICATION NUMBER: US 09/001,472  
PRIOR FILING DATE: 1997-12-31  
PRIOR APPLICATION NUMBER: US 60/037,386  
PRIOR FILING DATE: 1997-02-07  
PRIOR APPLICATION NUMBER: US 60/033,980  
PRIOR FILING DATE: 1996-12-31  
NUMBER OF SEQ ID NOS: 14  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 3  
LENGTH: 112  
TYPE: PRT  
ORGANISM: Rat Cortistatin  
US-10-335-125-3

Query Match 52.4%; Score 77; DB 12; Length 112;  
Best Local Similarity 60.0%; Pred. No. 0.00071;  
Matches 12; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 6 PPRERKAGCKNFYWKFTSC 25  
DB 92 PPRDKKPCNFFWKTFSSC 111

Search completed: August 13, 2003, 14:53:43



GenCore version 5.1.6.  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:47:57 ; Search time 16.0256 Seconds  
(without alignments)  
150.023 Million cell updates/sec

Title: US-09-727-739B-16  
Perfect score: 147  
Sequence: 1 SVDNLPERRKAGCKNFYWKGTSC 25  
Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR\_76:\*\*

1: Pirl:\*\*

2: Pirl:\*\*

3: Pirl:\*\*

4: Pirl:\*\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Length	DB ID	Description
1	147	100.0	25	2 A60842
2	136	93.9	125	1 RIAPS2
3	134	91.2	73	2 S00169
4	134	91.2	115	2 I51064
5	123.5	84.0	74	2 S00166
6	114	77.6	25	2 B60840
7	107	72.8	114	1 RIIDS1
8	107	72.8	114	2 I50798
9	107	72.8	115	2 JC6166
10	107	72.8	116	1 S20630
11	107	72.8	121	1 RIAPSI
12	105	71.4	28	2 A61322
13	105	71.4	92	1 RIFGS
14	105	71.4	116	1 RIHUS1
15	105	71.4	116	1 A28968
16	105	71.4	116	1 RIPOS1
17	105	71.4	116	1 RIPTS1
18	105	71.4	116	1 RIMSS1
19	102	69.4	34	2 A32271
20	94	63.9	37	2 A32000
21	85.5	58.2	103	2 JC6167
22	77	52.4	14	2 C60414
23	77	52.4	14	2 B60842
24	77	52.4	14	2 A60840
25	77	52.4	14	2 S00172
26	77	52.4	112	2 S67489
27	72	49.0	14	2 A60622
28	65	44.2	105	2 JC5414
29	52	35.4	316	2 F86157

acid trehalase hom  
somatostatin-22 pr  
conserved hypothet  
probable beta-1,3-  
hypothetical prote  
hypothetical prote  
hypothetical prote  
hypothetical prote  
ciliary neurotroph  
ABC transporter m  
ABC transporter m  
hypothetical prote  
CT085 hypothet  
conserved hypothet  
zinc ABC transport  
probable membrane-

## ALIGNMENTS

### RESULT 1

A60842

somatostatin-25 - coho salmon

N:Alternate names: somatostatin II precursor

C:Species: Oncorhynchus kisutch (coho salmon)

C>Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 07-May-1999

C:Accession: A60842; C60842

R:Plisetskaya, E.M.; Pollock, H.G.; Rouse, J.B.; Hamilton, J.W.; Kimmel, J.R.; Andre

Gen. Comp. Endocrinol. 63, 252-263, 1986

A:Title: Characterization of Coho salmon (Oncorhynchus kisutch) islet somatostatins

A:Reference number: A60842; PMID:87055212; PMID:2877919

A:Accession: A60842

A:Molecule type: protein

A:Residues: 1-25 <PLI>

A:Accession: C60842

A:Molecule type: protein

A:Residues: 12-25 <PL2>

A>Note: this form, somatostatin II, was not sequenced directly but rather deduced f

C:Keywords: hormone; pancreatic islet

C:Suprafamily: somatostatin

F:1-25/Product: somatostatin-25 #status experimental <MAT1>

F:12-25/Product: somatostatin II. #status experimental <MAT2>

Query Match 100.0%; Score 147; DB 2; Length 25;

Best Local Similarity 100.0%; Pred. No. 3e-15;

Matches 25; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 SVDNLPERRKAGCKNFYWKGTSC 25

DB 1 SVDNLPERRKAGCKNFYWKGTSC 25

### RESULT 2

RIAPS2

somatostatin II precursor - American goosefish

C:Species: Lophius americanus (American goosefish)

C>Date: 31-Mar-1981 #sequence\_revision 31-Mar-1981 #text\_change 28-May-1999

C:Accession: B93236; A94038; A27376; A01434; A21881; A93236

R:Hobart, P.; Crawford, R.; Shen, L.; Pictet, R.; Rutter, W.J.

Nature 288, 137-141, 1980

A:Title: Cloning and sequence analysis of cDNAs encoding two distinct somatostatin I

A:Reference number: A93236; PMID:81052423; PMID:6107860

A:Accession: B93236

A:Molecule type: mRNA

A:Residues: 1-125 <HOB>

A:Cross-references: GB:V00641; GB:J00947; GB:M23199; NID:G64030; PIDN:CAA23987.1; P

A:Experimental source: islet tissue (endocrine pancreas)

R:Spies, J.; Noe, B.D.

Proc. Natl. Acad. Sci. U.S.A. 82, 277-281, 1985

A:Title: Processing of an anglerfish somatostatin precursor to a hydroxylysine-cont

A:Reference number: A94038; PMID:85113184; PMID:2857489

A:Accession: A94038

A:Molecule type: protein  
 A:Residues: 98-125 <SPI>  
 B:Andrews, P.C.; Nichols, R.; Dixon, J.E.  
 J. Biol. Chem. 262, 12692-12699, 1987  
 A:Title: Post-translational processing of preprosomatostatin-II examined using fast atom bombardment mass spectrometry  
 A:Reference number: A27376; MUID:87308304; PMID:2887572  
 A:Accession: A27376  
 A:Molecule type: protein  
 A:Residues: 1-76, DV, 79-89, 'G', 91-125 <AND>  
 C:Superfamily: somatostatin  
 C:Keywords: hydroxylysine; neuropeptide; pyroglutamic acid  
 F:1-24/domain: signal sequence #status experimental <SIG>  
 F:25-97/product: propeptide #status experimental <PRO>  
 F:97-125/product: somatostatin II #status experimental <MAT>  
 F:125/modified site: pyroglutamate carboxylic acid (Gln) (in mature form) #status experimental  
 F:114-125/disulfide bonds: #status experimental  
 F:120/modified site: hydroxylysine (Lys) #status experimental

Query Match 93.9%; Score 138; DB 1; Length 125;  
 Best Local Similarity 92.0%; Pred. No. 3e-13;  
 Matches 23; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 SVDNLPERRKAGCKNFYWGFTSC 25  
 | : ||||| ||||| ||||| ||||| |||||  
 b 101 SVDNLPERRKAGCKNFYWGFTSC 125

RESULT 3  
 S00169  
 somatostatin II precursor - European flounder (tentative sequence) (fragments)  
 C:Species: Platichthys flesus (European flounder)  
 C>Date: 07-Sep-1990 #sequence\_revision 07-Sep-1990 #text\_change 31-Mar-2000  
 C:Accession: S00169  
 R:Conlon, J.M.; Davis, M.S.; Falkner, S.; Thim, L.  
 Eur. J. Biochem. 168, 647-652, 1987  
 A:Title: Structural characterization of peptides derived from prosomatostatins I and II  
 A:Reference number: S00166; MUID:88029486; PMID:2889597  
 A:Accession: S00169  
 A:Molecule type: protein  
 A:Residues: 1-10, 11-45, 46-73 <CON>  
 A:Note: three peptides which probably originate from a common precursor, were isolated  
 C:Superfamily: somatostatin  
 C:Keywords: glycoprotein; neuropeptide; pancreatic islet  
 F:1-10/product: peptide F1 #status experimental <PF1>  
 F:11-45/product: peptide F3 #status experimental <PF3>  
 F:46-73/product: peptide F2 #status experimental <PF2>  
 F:62-73/disulfide bonds: #status experimental

Query Match 91.2%; Score 134; DB 2; Length 73;  
 Best Local Similarity 95.7%; Pred. No. 7.1e-13;  
 Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 DNLPPRRKAGCKNFYWGFTSC 25  
 | : ||||| ||||| ||||| ||||| |||||  
 Db 51 NNLPPRRKAGCKNFYWGFTSC 73

RESULT 4  
 I51064  
 somatostatin II precursor - rainbow trout  
 C:Species: Oncorhynchus mykiss (rainbow trout)  
 C>Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 16-Jul-1999  
 C:Accession: I51064  
 R:Moore, C.A.; Kittelson, J.D.; Dahl, S.K.; Sheridan, M.A.  
 Gen. Comp. Endocrinol. 98, 253-261, 1995  
 A:Title: Isolation and characterization of a cDNA encoding for preprosomatostatin containing the mature somatostatin sequence  
 A:Reference number: I51064; MUID:9534921; PMID:7628684  
 A:Accession: I51064  
 A:Status: preliminary; translated from GB/EMBL/DBJ  
 A:Molecule type: mRNA  
 A:Residues: 1-115 <MO>  
 A:Cross-references: EMBL:U32471; NID:g975344; PIDN:AAC59695.1; PID:g975345  
 C:Superfamily: somatostatin

Query Match 91.2%; Score 134; DB 2; Length 115;  
 Best Local Similarity 95.7%; Pred. No. 1.1e-12;  
 Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

Qy 3 DNLPPRRKAGCKNFYWGFTSC 25  
 | : ||||| ||||| ||||| ||||| |||||  
 Db 93 NNLPPRRKAGCKNFYWGFTSC 115

RESULT 5  
 S00166  
 somatostatin II precursor - shorthorn sculpin (tentative sequence) (fragments)  
 C:Species: Myoxocephalus scorpius (shorthorn sculpin, daddy sculpin)  
 C>Date: 07-Sep-1990 #sequence\_revision 26-Jan-1996 #text\_change 31-Mar-2000  
 C:Accession: S00166; A26993  
 R:Conlon, J.M.; Davis, M.S.; Falkner, S.; Thim, L.  
 Eur. J. Biochem. 168, 647-652, 1987  
 A:Title: Structural characterization of peptides derived from prosomatostatins I and II  
 A:Reference number: S00166; MUID:88029486; PMID:2889597  
 A:Accession: S00166  
 A:Molecule type: protein  
 A:Residues: 1-12, 13-46; 47-74 <CON>  
 A:Note: three peptides which probably originate from a common precursor, were isolated  
 A:Note: the source is designated as Cottus scorpius  
 R:Cutfield, S.M.; Carne, A.; Cutfield, J.F.  
 FEBS Lett. 214, 57-61, 1987  
 A:Title: The amino-acid sequences of sculpin islet somatostatin-28 and peptide YY  
 A:Reference number: A91376; MUID:87190954; PMID:2883025  
 A:Accession: A26993  
 A:Molecule type: protein  
 A:Residues: 47-74 <CON>  
 C:Superfamily: somatostatin  
 C:Keywords: glycoprotein; neuropeptide; pancreatic islet  
 F:1-12/product: peptide S1 #status experimental <PS1>  
 F:13-46/product: peptide S4 #status experimental <PS2>  
 F:47-74/product: peptide S2 #status experimental <PS3>  
 F:63-74/disulfide bonds: #status experimental

Query Match 84.0%; Score 123.5; DB 2; Length 74;  
 Best Local Similarity 82.1%; Pred. No. 2.6e-11;  
 Matches 23; Conservative 1; Mismatches 1; Indels 3; Gaps 1;

Qy 1 SVD---NLPPRRKAGCKNFYWGFTSC 25  
 | | | | | : | | | | | ||||| |||||  
 Db 47 SVDPPNNPLRRKAGCKNFYWGFTSC 74

RESULT 6  
 B00840  
 somatostatin-25 - European eel  
 N:Alternate names: somatostatin II precursor  
 C:Species: Anguilla anguilla (European eel)  
 C>Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 20-Mar-1998  
 C:Accession: B00840  
 R:Conlon, J.M.; Deacon, C.F.; Hazon, N.; Henderson, I.W.; Thim, L.  
 Gen. Comp. Endocrinol. 72, 181-189, 1988  
 A:Title: Somatostatin-related and glucagon-related peptides with unusual structural features  
 A:Reference number: A60840; MUID:89065329; PMID:2904391  
 A:Accession: B00840  
 A:Molecule type: protein  
 A:Residues: 1-25 <CON>  
 C:Superfamily: somatostatin  
 C:Keywords: hormone; hydroxylysine (Lys) (partial) #status experimental  
 F:20/modified site: 5-hydroxylysine (Lys) (partial) #status experimental

Query Match 77.6%; Score 114; DB 2; Length 25;  
 Best Local Similarity 64.0%; Pred. No. 2.4e-10;  
 Matches 21; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

Qy 1 SVDNLPERRKAGCKNFYWGFTSC 25  
 | | | | | ||||| ||||| |||||  
 Db 1 SVDNPPRRKAGCKNFYWGFTSC 25



A:Cross-references: GB:J00946; NID:964028; PIDN:CAA23986.1; PID:964029  
 R:Goodman, R.H.; Jacobs, J.W.; Chin, W.W.; Lund, P.K.; Dee, P.C.; Habener, J.F.  
 Proc. Natl. Acad. Sci. U.S.A. 77, 5869-5873, 1980  
 A:Title: Nucleotide sequence of a cloned structural gene coding for a precursor of pancreatic somatostatin  
 A:Reference number: A93860; MUID:81077276; PMID:6108560  
 A:Accession: A93860  
 A:Molecule type: mRNA  
 A:Residues: 2-20, 'V', 22-82, 'E', 84-121 <GOO>  
 A:Experimental source: Islet tissue (endocrine pancreas)  
 R:Goodman, R.H.; Jacobs, J.W.; Chin, W.W.; Lund, P.K.; Dee, P.C.; Habener, J.F.  
 Proc. Natl. Acad. Sci. U.S.A. 79, 1682, 1982  
 A:Reference number: A93905  
 A:Contents: annotation; erratum  
 R:Noe, B.D.; Spiess, J.; Rivier, J.E.; Vale, W.  
 Endocrinology 105, 1410-1415, 1979  
 A:Title: Isolation and characterization of somatostatin from anglerfish pancreatic islet  
 A:Reference number: A91087; MUID:80046482; PMID:387385  
 A:Accession: A91087  
 A:Molecule type: protein  
 A:Residues: 108-121 <NOE>  
 C:Superfamily: somatostatin  
 C:Keywords: neuropeptide  
 F:1-24/Domain: signal sequence #status predicted <SIG>  
 F:108-121/Product: somatostatin I #status experimental <MAT>  
 F:110-121/Disulfide bonds: #status predicted

Query Match 72.8%; Score 107; DB 1; Length 121;  
 Best Local Similarity 85.7%; Pred. No. 1.2e-08;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYWKGTSC 25  
 DB 101 LAPRRKAGCKNFYWKGTSC 121

RESULT 12  
 A61322  
 somatostatin-28 - sheep  
 N:Contains: somatostatin-14  
 C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)  
 C:Date: 17-Jul-1994 #sequence\_revision 17-Jul-1994 #text\_change 07-May-1999  
 C:Accession: A61322; A61344  
 R:Spies, J.; Villars, J.; Vale, W.  
 Biochemistry 20, 1982-1988, 1981  
 A:Title: Isolation and sequence analysis of a somatostatin-like polypeptide from ovine hypothalamus  
 A:Reference number: A61322; MUID:81184502; PMID:7425368  
 A:Accession: A61322  
 A:Molecule type: protein  
 A:Residues: 1-28 <SPI>  
 R:Burgus, R.; Ling, N.; Butcher, M.; Guillemin, R.  
 Proc. Natl. Acad. Sci. U.S.A. 70, 684-688, 1973  
 A:Title: Primary structure of somatostatin, a hypothalamic peptide that inhibits the secretion of growth hormone  
 Reference number: A61344; MUID:73209562; PMID:4514982  
 A:Accession: A61344  
 A:Molecule type: protein  
 A:Residues: 15-28 <BUR>  
 C:Superfamily: somatostatin  
 C:Keywords: neuropeptide  
 F:1-28/Product: somatostatin-28 #status experimental <S28>  
 F:15-28/Product: somatostatin-14 #status experimental <S14>  
 F:17-28/Disulfide bonds: #status experimental

Query Match 71.4%; Score 105; DB 2; Length 28;  
 Best Local Similarity 81.0%; Pred. No. 5.9e-09;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYWKGTSC 25  
 DB 8 MAPRRKAGCKNFYWKGTSC 28

RESULT 13  
 RIPGS

somatostatin I precursor - pig (fragment)  
 N:Alternate names: prosomatostatin  
 N:Contains: somatostatin 14 (SS-14); somatostatin 28 (SS-28)  
 C:Species: Sus scrofa domestica (domestic pig)  
 C:Date: 30-Nov-1980 #sequence\_revision 31-Jan-1997 #text\_change 31-Jan-1997  
 C:Accession: A34109; A24222; A91273; A93854; A90398; S13616; A01432  
 R:Bersani, M.; Thim, L.; Baldissera, F.G.A.; Holst, J.J.  
 J. Biol. Chem. 264, 10633-10636, 1989  
 A:Title: Prosomatostatin 1-64 is a major product of somatostatin gene expression in the rat hypothalamus  
 A:Reference number: A34109; MUID:89278131; PMID:2567292  
 A:Accession: A34109  
 A:Molecule type: protein  
 A:Residues: 1-64 <BER>  
 R:Schmidt, W.E.; Mutt, V.; Kratzin, H.; Carlquist, M.; Conlon, J.M.; Creutzfeldt, W.  
 FEBS Lett. 192, 141-146, 1985  
 A:Title: Isolation and characterization of proSS1-32, a peptide derived from the N-terminus of somatostatin  
 A:Reference number: A24222; MUID:86030691; PMID:2865169  
 A:Accession: A24222  
 A:Molecule type: protein  
 A:Residues: 1-32 <SC3>  
 R:Pradayrol, L.; Jornvall, H.; Mutt, V.; Ribet, A.  
 FEBS Lett. 192, 55-58, 1980  
 A:Title: N-terminally extended somatostatin: the primary structure of somatostatin-2  
 A:Reference number: A91273; MUID:80113258; PMID:7353633  
 A:Accession: A91273  
 A:Molecule type: protein  
 A:Residues: 65-92 <PRA>  
 R:Experimental source: intestine  
 R:Schally, A.V.; Huang, W.Y.; Chang, R.C.C.; Arimura, A.; Redding, T.W.; Millar, R.P.  
 Proc. Natl. Acad. Sci. U.S.A. 77, 4489-4493, 1980  
 A:Title: Isolation and structure of pro-somatostatin: a putative somatostatin precursor  
 A:Reference number: A93854; MUID:81054799; PMID:6107906  
 A:Accession: A93854  
 A:Molecule type: protein  
 A:Residues: 65-92 <SCH>  
 R:Experimental source: hypothalamus  
 R:Schally, A.V.; Dupont, A.; Arimura, A.; Redding, T.W.; Nishi, N.; Linthicum, G.L.; Bloch, R.  
 Biochemistry 15, 509-514, 1976  
 A:Title: Isolation and structure of somatostatin from porcine hypothalamus  
 A:Reference number: A90398; MUID:76136331; PMID:1252409  
 A:Accession: A90398  
 A:Molecule type: protein  
 A:Residues: 79-92 <SC2>  
 R:Experimental source: hypothalamus  
 R:Bersani, M.; Thim, L.; Holst, J.J.  
 FEBS Lett. 279, 23-29, 1991  
 A:Title: Oxidation/reduction explains heterogeneity of pancreatic somatostatin  
 A:Reference number: S13616; MUID:91160722; PMID:1672110  
 A:Accession: S13616  
 A:Molecule type: protein  
 A:Residues: 79-92 <BE2>  
 C:Comment: Somatostatin inhibits the release of somatotropin.  
 C:Superfamily: somatostatin  
 C:Keywords: hormone; hypothalamus; intestine; neuropeptide  
 F:1-64/Domain: propeptide #status experimental <PRO>  
 F:65-92/Product: somatostatin-28 #status experimental <M28>  
 F:79-92/Product: somatostatin-14 #status experimental <M14>  
 F:37/Binding site: carbohydrate (Asn) (covalent) #status absent  
 F:81-92/Disulfide bonds: #status experimental

Query Match 71.4%; Score 105; DB 1; Length 92;  
 Best Local Similarity 81.0%; Pred. No. 1.8e-08;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYWKGTSC 25  
 DB 72 MAPRRKAGCKNFYWKGTSC 92

RESULT 14  
 RIHUSI  
 somatostatin I precursor - human  
 N:Alternate names: preprosomatostatin

N:Contains: somatostatin-14 (SS-14); somatostatin 28 (SS-28)

C:Species: Homo sapiens (man)

C>Date: 17-Dec-1982 #sequence\_revision 17-Dec-1982 #text\_change 18-Jun-1999

C:Accession: A43614; A01430; S09381; S50024

R:Shen, L.P.; Rutter, W.J.

Science 224, 168-171, 1984

A:Title: Sequence of the human somatostatin I gene.

A:Reference number: A43614; PMID:84146798; PMID:6142531

A:Accession: A43614

A:Molecule type: DNA

A:Residues: 1-116 <SH2>

A:Cross-references: GB:J00306; NID:9338287; PIDN:AAA60566.1; PID:9338288

R:Shen, L.P.; Pictet, R.L.; Rutter, W.J.

Proc. Natl. Acad. Sci. U.S.A. 79, 4575-4579, 1982

A:Title: Human somatostatin I: sequence of the cDNA.

A:Reference number: A01430; PMID:83014931; PMID:6126875

A:Accession: A01430

A:Molecule type: mRNA

A:Residues: 1-116 <SH2>

A:Cross-references: GB:J00306; NID:9338287; PIDN:AAA60566.1; PID:9338288

A:Experimental source: pancreatic somatostatinoma

R:Gomez, S.; Boileau, G.; Zollinger, L.; Nault, C.; Rholam, M.; Cohen, P.

EMBO J. 8, 2911-2916, 1989

A:Title: Site-specific mutagenesis identifies amino acid residues critical in prohormone

A:Reference number: S09381; PMID:90059875; PMID:2573512

A:Accession: S09381

A>Status: preliminary

A:Molecule type: mRNA

A:Residues: 88-108 <GON>

R:Odum, L.; Johnsen, A.H.

Biochem. J. 303, 263-268, 1994

A:Title: Human seminal plasma contains somatostatin-64.

A:Reference number: S50024; PMID:95031969; PMID:7945250

A:Accession: S50024

A>Status: preliminary

A:Molecule type: protein

A:Residues: 53-62; 67-82 <ODD>

C:Comment: Somatostatin inhibits the release of somatotropin.

C:Genetics:

A:Gene: GDB:SST

A:Cross-references: GDB:119604; OMIM:182450

A:Map position: 3q28-3q28

A:Introns: 46/3

C:Function:

A:Description: Inhibits the secretion of a number of peptide hormones, including somatot

C:Superfamily: Somatostatin

F:1-24/Domain: signal sequence #status predicted <SIG>

F:25-86/Domain: propeptide #status predicted <PRO>

F:89-116/Product: somatostatin-28 #status predicted <M28>

F:103-116/Product: somatostatin-14 #status predicted <M14>

F:105-116/Disulfide bonds: #status experimental

Query Match 71.4%; Score 105; DB 1; Length 116;

Best Local Similarity 81.0%; Pred. No. 2.3e-08;

Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25

DB 96 MAPRRKAGCKNFYKGTSC 116

RESULT 15

A28968

somatostatin I precursor - crab-eating macaque

N:Alternate names: preprosomatostatin

N:Contains: somatostatin 14 (SS-14); somatostatin 28 (SS-28)

C:Species: Macaca fascicularis (crab-eating macaque)

C>Date: 30-Jun-1989 #sequence\_revision 31-Jan-1997 #text\_change 18-Jun-1999

C:Accession: A28968

R:Travis, G.H.; Sutcliffe, J.G.

Proc. Natl. Acad. Sci. U.S.A. 85, 1696-1700, 1988

A:Title: Phenol emulsion-enhanced DNA-driven subtractive cDNA cloning: isolation of low-

A:Reference number: A28968; PMID:88144503; PMID:2894033

A:Accession: A28968

A:Molecule type: mRNA

A:Residues: 1-116 <TRA>

A:Cross-references: GB:M19318; NID:9342298; PIDN:AAA36908.1; PID:9342299

C:Comment: Somatostatin inhibits the release of somatotropin.

C:Superfamily: somatostatin

C:Keywords: hormone; neuropeptide

F:1-24/Domain: signal sequence #status predicted <SIG>

F:25-88/Domain: propeptide #status predicted <PRO>

F:89-116/Product: somatostatin-28 #status predicted <M28>

F:103-116/Product: somatostatin-14 #status predicted <M14>

F:105-116/Disulfide bonds: #status predicted

Query Match 71.4%; Score 105; DB 1; Length 116;

Best Local Similarity 81.0%; Pred. No. 2.3e-08;

Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25

DB 96 MAPRRKAGCKNFYKGTSC 116

Search completed: August 13, 2003, 14:51:52

Job time: 17.0256 secs



Query Match 93.9%; Score 138; DB 1; Length 125;  
 Best Local Similarity 92.0%; Pred. No. 6.5e-14;  
 Matches 23; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 SVNLPERRKAGCKNFYWGFTSC 25  
 DB 101 STNNLPERRKAGCKNFYWGFTSC 125

## RESULT 2

SMS2\_PLAFE STANDARD; PRT; 73 AA.  
 AC P21780; 1991 (Rel. 18, Created)  
 DT 01-MAY-1991 (Rel. 18, Last annotation update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14] (fragments).  
 OS Platichtys flesus (European flounder).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
 CC Acanthomorpha; Acanthopterygii; Percormorpha; Pleuronectiformes;  
 CC Pleuronectoidae; Pleuronectidae; Platichtys.  
 CC NCBI\_Taxid=8260;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE=Pancreas; PubMed=2889597;  
 RX MEDLINE=88029486; Falkner S., Thim L.;  
 RA Conlon J.M., Davis M.S., Falkner S., Thim L.;  
 RT "Structural characterization of peptides derived from  
 RT prosomatostatins I and II isolated from the pancreatic islets of two  
 RT species of teleostean fish: the daddy sculpin and the flounder.";  
 RL Eur. J. Biochem. 168:647-652(1987).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR: S00169; S00169.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1 1  
 FT NON\_CONS 10 11  
 FT NON\_CONS 45 46  
 FT PEPTIDE 45 73  
 FT PEPTIDE 60 73  
 FT DISULFID 62 73  
 SQ SEQUENCE 73 AA; 7989 MW; CCCBA6B30DCB29BB CRC64;

Query Match 91.2%; Score 134; DB 1; Length 73;  
 Best Local Similarity 95.7%; Pred. No. 1.5e-13;  
 Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 DNLPPRRKAGCKNFYWGFTSC 25  
 DB 51 NNLPPRRKAGCKNFYWGFTSC 73

## RESULT 3

SMS2\_ONCMY STANDARD; PRT; 115 AA.  
 AC Q91194;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14].  
 OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Actinopterygii; Neopterygii; Teleostei; Euteleostei;  
 CC Pteleacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.  
 CC NCBI\_Taxid=8022;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=95354921; PubMed=7628684;

RA Moore C.A., Kittilson J.D., Dahl S.K., Sheridan M.A.;  
 RT "Isolation and characterization of a cDNA encoding for  
 RT preprosomatostatin containing [Tyr7, Gly10]somatostatin-14 from the  
 RT endocrine pancreas of rainbow trout, *Oncorhynchus mykiss*.";  
 RL Gen. Comp. Endocrinol. 98:253-261(1995).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 CC  
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 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch)).  
 CC  
 CC EMBL: U32471; AAC59695.1;  
 DR PIR: I51064; I51064.  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone; Signal; Multigene family.  
 FT SIGNAL 1 18  
 FT PROPEP 19 87  
 FT PEPTIDE 88 115  
 FT PEPTIDE 102 115  
 FT DISULFID 104 115  
 SQ SEQUENCE 115 AA; 12963 MW; 520595025FCA6D91 CRC64;  
 Query Match 91.2%; Score 134; DB 1; Length 115;  
 Best Local Similarity 95.7%; Pred. No. 2.4e-13;  
 Matches 22; Conservative 1; Mismatches 0; Indels 0; Gaps 0;

QY 3 DNLPPRRKAGCKNFYWGFTSC 25  
 DB 93 NNLPPRRKAGCKNFYWGFTSC 115

RESULT 4  
 SMS2\_MYOSC STANDARD; PRT; 74 AA.  
 AC P09876;  
 DT 01-MAR-1989 (Rel. 10, Created)  
 DT 01-FEB-1991 (Rel. 17, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14] (fragments).  
 OS Myoxocephalus scorpius (Shorthorn sculpin) (Daddy sculpin).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Acanthomorpha; Acanthopterygii; Teleostei; Euteleostei; Neoteleostei;  
 CC Acanthopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
 CC Cottidae; Cottidae; Myoxocephalus.  
 CC NCBI\_Taxid=8097;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE=Pancreas;  
 RX MEDLINE=88029486; PubMed=2889597;  
 RA Conlon J.M., Davis M.S., Falkner S., Thim L.;  
 RT "Structural characterization of peptides derived from  
 RT prosomatostatins I and II isolated from the pancreatic islets of two  
 RT species of teleostean fish: the daddy sculpin and the flounder.";  
 RL Eur. J. Biochem. 168:647-652(1987).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR: S00169; S00169.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1 1  
 FT NON\_CONS 10 11  
 FT NON\_CONS 45 46  
 FT PEPTIDE 45 73  
 FT PEPTIDE 60 73  
 FT DISULFID 62 73  
 SQ SEQUENCE 73 AA; 7989 MW; CCCBA6B30DCB29BB CRC64;

DR PIR: S00166; S00166.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1  
 FT NON\_CONS 12  
 FT PEPTIDE 46  
 FT PEPTIDE 47  
 FT PEPTIDE 74  
 FT DISULFID 61  
 FT DISULFID 74  
 SQ SEQUENCE 74 AA; 8036 MW; 6864A59A3FA72C47 CRC64;  
 Query Match 84.0%; Score 123.5; DB 1; Length 74;  
 Best Local Similarity 82.1%; Pred. No. 5.8e-12;  
 Matches 23; Conservative 1; Mismatches 1; Indels 3; Gaps 1;  
 QY 1 SVD---NLPPRRKAGCKNFYKGTSC 25  
 47 SVDPPNNIPLRRKAGCKNFYKGTSC 74  
 RESULT 5  
 SMS2\_ORENI STANDARD; PRT; 28 AA.  
 AC P81029;  
 DT 01-NOV-1997 (Rel. 35, Created)  
 DT 01-NOV-1997 (Rel. 35, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14] (Fragment)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14] (Fragment)  
 OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostomi;  
 OC Acanthomorphi; Acanthopterygii; Perciformes; Labroidae;  
 OC Cichlidae; Oreochromis.  
 OX NCBI\_TaxID-8128;  
 RP SEQUENCE  
 RX MEDLINE-95384941; PubMed-7656183;  
 RA Nguyen T.M., Wright J.R. Jr., Nielsen P.F., Conlon J.M.;  
 RT "Characterization of the pancreatic hormones from the Brockmann body  
 of the tilapia: implications for islet xenograft studies.";  
 RL Comp. Biochem. Physiol. 111C:33-44(1995).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR InterPro: IPR004250; Somatostatin.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1  
 FT PEPTIDE 15  
 FT PEPTIDE 28  
 FT DISULFID 17  
 FT DISULFID 28  
 SQ SEQUENCE 28 AA; 3155 MW; 47C049F4866EF4AC CRC64;  
 Query Match 82.3%; Score 121; DB 1; Length 28;  
 Best Local Similarity 82.6%; Pred. No. 5e-12;  
 Matches 19; Conservative 3; Mismatches 1; Indels 0; Gaps 0;  
 QY 3 DNLPPRRKAGCKNFYKGTSC 25  
 6 NSIPPRKAGCKNFYKGLTSC 28  
 Db  
 RESULT 6  
 SMS2\_CARAU STANDARD; PRT; 120 AA.  
 AC O9VGH4; O9PNU2;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
 [Tyr7,Gly10]somatostatin-14]  
 OS Carassius auratus (Goldfish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Cyprinidae; Carassius.  
 OX NCBI\_TaxID-7957;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE-Brain;  
 RA Lin X.-W., Peter R.E.;  
 RT "Cloning and characterization of cDNAs encoding preprosomatostatin-I  
 and -II from goldfish brain.";  
 RL Submitted (JUN-1996) to the EMBL/GenBank/DBJ databases.  
 RN [2]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE-Liver;  
 RA Otto C.J., Peter R.E.;  
 RT "The expression of SNIF mRNA in the brain of goldfish.";  
 RL Submitted (SEP-1997) to the EMBL/GenBank/DBJ databases.  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC EMBL; U60262; AAD09626.1;  
 DR EMBL; AF025686; AAP15306.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone; Signal; Multigene family.  
 FT SIGNAL 1 23 POTENTIAL.  
 FT PROPEP 24 92  
 FT PEPTIDE 93 120 [TYR21, GLY24] SOMATOSTATIN-28.  
 FT PEPTIDE 107 120 [TYR7, GLY10] SOMATOSTATIN-14.  
 FT DISULFID 109 120 BY SIMILARITY.  
 FT CONFLICT 51 51 Q -> RW (IN REF. 2).  
 FT SEQUENCE 120 AA; 13723 MW; 98957D68011A651A CRC64;  
 SQ  
 Query Match 74.8%; Score 110; DB 1; Length 120;  
 Best Local Similarity 76.0%; Pred. No. 1.1e-09;  
 Matches 19; Conservative 1; Mismatches 5; Indels 0; Gaps 0;  
 QY 1 SVDNLPPRRKAGCKNFYKGTSC 25  
 96 SSNQLFTRVYRKESCKNFYKGTSC 120  
 Db  
 RESULT 7  
 SMS1\_AMICA STANDARD; PRT; 26 AA.  
 AC Q2PR65; 2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin I precursor [Contains: Somatostatin 26; Somatostatin-14]  
 (Fragment).  
 OS Amia calva (Bowfin).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Amiiformes; Amiidae; Amia.  
 OX NCBI\_TaxID-7924;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE-Pancreas;  
 RA MEDLINE-94023232; PubMed-8105513;  
 RA Wang Y., Youson J.H., Conlon J.M.;  
 RT "Prosomatostatin-I is processed to somatostatin-26 and somatostatin-14  
 in the pancreas of the bowfin, Amia calva.";  
 RL Regul. Pept. 47:33-39(1993).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted





Db 94 LAPRRKAGCKNFFWKTFTSC 114  
 RESULT 10  
 SMSI\_RANRI STANDARD; PRT; 115 AA.  
 ID AC P87384; Q9P518;  
 DT 16-OCT-2001 (Rel. 40, Created).  
 DT 16-OCT-2001 (Rel. 40, Last sequence update).  
 DE Somatostatin 1 precursor (PSS1) [Contains: Somatostatin-14 (S-I) (SSS1)].  
 OS Rana ridibunda (laughing frog) (Marsh frog).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Amphibia; Batrachia; Anura; Neobatrachia; Ranoidae; Ranidae; Rana.  
 NCBI\_TaxID=8406;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Brain;  
 RX MEDLINE=97057290; PubMed=8901629;  
 RA Tostivint H., Lohmann I., Sucharies C., Vileau D., Coulouarn Y.,  
 RT Fournier A., Conlon J.M., Vaudry H.;  
 RT Occurrence of two somatostatin variants in the frog brain:  
 RT characterization of the cDNAs, distribution of the mRNAs, and  
 RT receptor-binding affinities of the peptides.;  
 RL Proc. Natl. Acad. Sci. U.S.A. 93:12605-12610(1996).  
 RN [2]  
 RP SEQUENCE OF 102-115.  
 RC TISSUE=Brain;  
 RX MEDLINE=93038702; PubMed=1358069;  
 RA Vaudry H., Charrel N., Conlon J.M.;  
 RT Isolation of [Pro,Met]somatostatin-14 and somatostatin-14 from the  
 RT frog brain reveals the existence of a somatostatin gene family in a  
 RT tetrapod.;  
 RL Biochem. Biophys. Res. Commun. 188:477-482(1992).  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -!- SUBCELLULAR LOCATION: Secreted.  
 CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC  
 CC EMBL; U68136; AAC60093.1; -  
 CC PIR; JC6166; JC6166.  
 CC InterPro; IPR004250; Somatostatin; 1.  
 CC Pfam; PF03002; Somatostatin; 1.  
 CC Cleavage on pair of basic residues; Hormone; Multigene family; Signal.  
 CC BY SIMILARITY.  
 CC SIGNAL 1 24 BY SIMILARITY.  
 CC PROPEP 25 99 BY SIMILARITY.  
 CC PEPTIDE 102 115 SOMATOSTATIN-14.  
 CC DISULFID 104 115 BY SIMILARITY.  
 CC SEQUENCE 115 AA; 12691 MW; 349756FE4ABE213 CRC64;  
 Query Match 72.8%; Score 107; DB 1; Length 115;  
 Best Local Similarity 85.7%; Pred. No. 2.9e-09;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPRRKAGCKNFFWKTFTSC 25  
 DB 95 LAPRRKAGCKNFFWKTFTSC 115  
 RESULT 11  
 SMSI\_CHICK STANDARD; PRT; 116 AA.  
 ID AC P33094;  
 DT 01-OCT-1993 (Rel. 27, Created)

DT 01-OCT-1993 (Rel. 27, Last sequence update).  
 DT 16-OCT-2001 (Rel. 40, Last annotation update).  
 DE Somatostatin precursor [Contains: Somatostatin-28; Somatostatin-14].  
 GN SST.  
 OS Gallus gallus (Chicken).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianinae;  
 OC Gallus.  
 NCBI\_TaxID=9031;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Pancreas;  
 RA Nata K., Kobayashi T., Karahashi K., Kato S., Yamamoto H.,  
 RA Yonekura H., Okamoto H.;  
 RL Submitted (JUN-1991) to the EMBL/GenBank/DBJ databases.  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -!- SUBCELLULAR LOCATION: Secreted.  
 CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC  
 CC EMBL; X60191; CAA42747.1; -  
 CC PIR; S20630; S20630.  
 CC InterPro; IPR004250; Somatostatin.  
 CC Pfam; PF03002; Somatostatin; 1.  
 CC Cleavage on pair of basic residues; Hormone; Signal.  
 CC BY SIMILARITY.  
 CC SIGNAL 1 24 BY SIMILARITY.  
 CC PROPEP 25 88 BY SIMILARITY.  
 CC PEPTIDE 89 116 SOMATOSTATIN-28.  
 CC DISULFID 103 116 SOMATOSTATIN-14.  
 CC SEQUENCE 116 AA; 12675 MW; 8A5BB9BDA8A291BA CRC64;  
 Query Match 72.8%; Score 107; DB 1; Length 116;  
 Best Local Similarity 85.7%; Pred. No. 2.9e-09;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPRRKAGCKNFFWKTFTSC 25  
 DB 96 LAPRRKAGCKNFFWKTFTSC 116  
 RESULT 12  
 SMSI\_LOPAM STANDARD; PRT; 121 AA.  
 ID AC P01169;  
 DT 21-JUL-1986 (Rel. 01, Created).  
 DT 21-JUL-1986 (Rel. 01, Last sequence update).  
 DE Somatostatin 1 precursor [Contains: Somatostatin-14].  
 OS Lophius americanus (American goosefish) (Anglerfish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
 OC Acanthomorpha; Paracanthopterygii; Lophiiformes; Lophidae; Lophius.  
 NCBI\_TaxID=8073;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC MEDLINE=81052423; PubMed=6107860;  
 RA Hobart P.M., Crawford R., Shen L., Pictet R., Rutter W.J.;  
 RT Cloning and sequence analysis of cDNAs encoding two distinct  
 RT somatostatin precursors found in the endocrine pancreas of  
 RT anglerfish.;  
 RL Nature 288:137-141(1980).  
 RN [2]  
 RP SEQUENCE OF 2-121 FROM N.A.  
 RX MEDLINE=81077276; PubMed=6108560;  
 RA Goodman R.H., Jacobs J.W., Chin W.W., Lund P.K., Dee P.C.,

RA Habener J.F.;  
 RT "Nucleotide sequence of a cloned structural gene coding for a  
 RL precursor of pancreatic somatostatin.";  
 RN Proc. Natl. Acad. Sci. U.S.A. 77:5869-5873(1980).  
 [3]  
 RP ERRATUM.  
 RA Goodman R.H., Jacobs J.W., Chin W.W., Lund P.K., Dee P.C.,  
 RA Habener J.F.;  
 RL Proc. Natl. Acad. Sci. U.S.A. 79:1682-1682(1982).  
 [4]  
 RP SEQUENCE OF 108-121.  
 RX MEDLINE-80046482; PubMed-387385;  
 RA Noe B.D., Spless J., Rivier J.E., Vale W.;  
 RT "Isolation and characterization of somatostatin from anglerfish  
 RT pancreatic islet.";  
 RL Endocrinology 105:1410-1415(1979).  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -!- SUBCELLULAR LOCATION: Secreted  
 CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC -----  
 DR EMBL; V00640; CAA23986.1;  
 DR PIR; A33236; RIAFSA.  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone; Signal;  
 KW Multigene family.  
 FT SIGNAL 1 24 PROBABLE.  
 FT PROPEP 25 105  
 FT PEPTIDE 108 121 SOMATOSTATIN-14.  
 FT DISULFID 110 121  
 FT CONFLICT 21 21  
 FT CONFLICT 83 83 A -> V (IN REF. 2).  
 FT CONFLICT 121 121 G -> E (IN REF. 2).  
 SQ SEQUENCE 121 AA; 13325 MW; D70C53DC798C2095 CRC64;  
 Query Match 72.8%; Score 107; DB 1; Length 121;  
 Best Local Similarity 85.7%; Pred. No. 3e-09;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPRRKAGCKNFYKGTSC 25  
 DB 101 LAPRRKAGCKNFYKGTSC 121  
 -----  
 RESULT 13  
 MS\_PIG STANDARD; PRT; 92 AA.  
 AC P01168;  
 DT 21-JUL-1986 (Rel. 01, Created)  
 DT 01-OCT-1989 (Rel. 12, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin precursor [Contains: Somatostatin-28; Somatostatin-14]  
 DE (Fragment).  
 DE SST.  
 GN GN  
 OS Sus scrofa (Pig).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.  
 OX NCBI\_TaxID-9823;  
 RP SEQUENCE OF 1-64  
 RX MEDLINE-9278131; PubMed-2567292;  
 RA Persant M., Thim L., Baldissera F.G.A., Holst J.J.;  
 RT "Prosomatostatin 1-64 is a major product of somatostatin gene  
 RT expression in pancreas and gut.";  
 RL J. Biol. Chem. 264:10633-10636(1989).  
 [2]

RP SEQUENCE OF 1'-32;  
 RX MEDLINE-96030691; PubMed-2865169;  
 RA Schmidt W.E., Mutt V., Kratzin H., Carlquist M., Conlon J.M.,  
 RA Creutzfeldt W.;  
 RT "Isolation and characterization of proSS1-32, a peptide derived from  
 RL the N-terminal region of porcine preprosomatostatin.";  
 RN FEBS Lett. 192:141-146(1985).  
 [3]  
 RP SEQUENCE OF 65-92;  
 RC TISSUE-Intestine;  
 RX MEDLINE-80113258; PubMed-7353633;  
 RA Pradayrol L., Toernvall H., Mutt V., Ribet A.;  
 RT "N-terminally extended somatostatin: the primary structure of  
 RL somatostatin-28.";  
 RN FEBS Lett. 109:55-58(1980).  
 [4]  
 RP SEQUENCE OF 65-92;  
 RC TISSUE-Hypothalamus;  
 RX MEDLINE-81047793; PubMed-6107906;  
 RA Schally A.V., Huang W.-I., Chang R.C.C., Arimura A., Redding T.W.,  
 RA Willar R.P., Hunkapiller M.W., Hood L.E.;  
 RT "Isolation and structure of pro-somatostatin: a putative somatostatin  
 RL precursor from pig hypothalamus.";  
 RN Proc. Natl. Acad. Sci. U.S.A. 77:4489-4493(1980).  
 [5]  
 RP SEQUENCE OF 79-92;  
 RX MEDLINE-76136331; PubMed-1252409;  
 RA Schally A.V., Dupont A., Arimura A., Redding T.W., Nishi N.,  
 RA Linthicum G.L., Schlesinger D.H.;  
 RT "Isolation and structure of somatostatin from porcine hypothalamus.";  
 RN Biochemistry 15:509-514(1976).  
 [6]  
 RP SEQUENCE OF 22-92 FROM N.A.  
 RA Riquet J.;  
 RL Submitted (SEP-1995) to the EMBL/GenBank/DBJ databases.  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -!- SUBCELLULAR LOCATION: Secreted.  
 CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC -----  
 DR EMBL; U36385; AAB38485.1;  
 DR PIR; A34109; RPPGS.  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone.  
 FT NON\_TER 1 1  
 FT PROPEP 1 64  
 FT PEPTIDE 65 92 SOMATOSTATIN-28.  
 FT PEPTIDE 79 92 SOMATOSTATIN-14.  
 FT DISULFID 81 92  
 SQ SEQUENCE 92 AA; 10346 MW; 787CBE82CFBBAE76 CRC64;  
 Query Match 71.4%; Score 105; DB 1; Length 92;  
 Best Local Similarity 81.0%; Pred. No. 4.5e-09;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;  
 QY 5 LPPRRKAGCKNFYKGTSC 25  
 DB 72 MAPRRKAGCKNFYKGTSC 92  
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 RESULT 14  
 SMS\_BOVIN  
 ID SMS\_BOVIN STANDARD; PRT; 116 AA.  
 AC P26917;  
 DT 01-AUG-1992 (Rel. 23, Created)

DT 01-AUG-1992 (Rel. 23, Last sequence update)  
 DE 16-OCT-2001 (Rel. 40, Last annotation update)  
 GN Somatostatin precursor [Contains: Somatostatin-28; Somatostatin-14].  
 GN SST.

OS Bos taurus (Bovine)  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;  
 OC Bovidae; Bovinae; Bos.  
 OX NCBI\_TaxID=9913;

RN [1]  
 RP SEQUENCE FROM N.A.

RX MEDLINE=8828237; PubMed=2899837;  
 RA Su C.J., White J.W., Li W.H., Luo C.C., Frazier M.L., Saunders G.F.,  
 RA Chan L.;  
 RT "Structure and evolution of somatostatin genes.";  
 RL Mol. Endocrinol. 2:209-216(1988).  
 RN [2]

RP SEQUENCE FROM N.A.

RX STRAIN=Holstein;  
 RA MEDLINE=99198780; PubMed=10100681;  
 RA Puro L.M., Kazmer G.W., Strausbaugh L., Zinn S.A.;  
 RT "Cloning and characterization of the bovine somatostatin gene.";  
 RL J. Anim. Sci. 77:492-493(1993).  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.

CC -!- SUBCELLULAR LOCATION: Secreted.

CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.

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CC EMBL; M31217; AAA30744.1; -

DR EMBL; U97077; AAB58056.1; -

DR PIR; A40929; RIBOS1.

DR InterPro; IPR004250; Somatostatin.

DR Pfam; PF03002; Somatostatin; 1.

KW Cleavage on pair of basic residues: Hormone; Signal.

FT SIGNAL 1 24 BY SIMILARITY.

FT PROPEP 25 88 BY SIMILARITY.

FT PEPTIDE 89 116 SOMATOSTATIN-28.

FT PEPTIDE 103 116 SOMATOSTATIN-14.

FT DISULFID 105 116 BY SIMILARITY.

FT SEQUENCE 116 AA; 12688 MW; C18FI7E64A371D8E CRC64;

Query Match 71.4%; Score 105; DB 1; Length 116;

Best Local Similarity 81.0%; Pred. No. 5.8e-09;

Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGFSTC 25

DB : ||||| ||||| ||||| |||||

96 MAPRRKAGCKNFYKGFSTC 116

RESULT 15

SMS\_CANFA STANDARD; PRT; 116 AA.

AC P49670;

DT 01-FEB-1996 (Rel. 33, Created)

DT 01-FEB-1996 (Rel. 33, Last sequence update)

DT 16-OCT-2001 (Rel. 40, Last annotation update)

DE Somatostatin precursor [Contains: Somatostatin-28; Somatostatin-14].

GN SST.

OS Canis familiaris (Dog).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.

OX NCBI\_TaxID=9615;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE=Gastric mucosa;

RX MEDLINE=97142297; PubMed=9988514;  
 RA Dickinson C.J., Delvalle J., Todisco A., Gantz I., Tong L.,  
 RA Finnis S., Yamada F.;  
 RT "Canine Somatostatin: Isolation of a cDNA, regulation of gene  
 RT expression, and characterization of post-translational processing  
 RT intermediates.";  
 RL Regul. Pept. 67:145-152(1996).  
 CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.

CC -!- SUBCELLULAR LOCATION: Secreted.

CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.

CC This SWISS-PROT entry is copyright. It is produced through a collaboration  
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 CC or send an email to [license@isb-sib.ch](mailto:license@isb-sib.ch))

CC EMBL; L42325; AAA67099.1; -

DR InterPro; IPR004250; Somatostatin.

DR Pfam; PF03002; Somatostatin; 1.

KW Cleavage on pair of basic residues: Hormone; Signal.

FT SIGNAL 1 24 BY SIMILARITY.

FT PROPEP 25 88 BY SIMILARITY.

FT PEPTIDE 89 116 SOMATOSTATIN-28.

FT PEPTIDE 103 116 SOMATOSTATIN-14.

FT DISULFID 105 116 BY SIMILARITY.

FT SEQUENCE 116 AA; 12735 MW; AB49BD231E731C9E CRC64;

Query Match 71.4%; Score 105; DB 1; Length 116;

Best Local Similarity 81.0%; Pred. No. 5.8e-09;

Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGFSTC 25

DB : ||||| ||||| ||||| |||||

96 MAPRRKAGCKNFYKGFSTC 116

Search completed: August 13, 2003, 14:51:20

Job time : 10.6134 secs

GenCore version 5.1.6  
Copyright. (c) 1993 - 2003 CompuGen Ltd.

OM protein - protein search, using sw model

Run on: August 13, 2003, 14:48:42 ; Search time 37.8205 Seconds  
(without alignments)  
170.577 Million cell updates/sec

Title: US-09-727-739b-16

Perfect score: 147  
Sequence: 1 SVDNLPKRKAGCKNFYKGTSC 25

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries.

Database :

SPTREMBL\_23:\*\*  
1: sp\_archaea:\*  
2: sp\_bacteria:\*  
3: sp\_fungi:\*  
4: sp\_human:\*  
5: sp\_invertebrate:\*  
6: sp\_mammal:\*  
7: sp\_mhc:\*  
8: sp\_organelle:\*  
9: sp\_phase:\*  
10: sp\_plant:\*  
11: sp\_rodent:\*  
12: sp\_virus:\*  
13: sp\_vertebrate:\*  
14: sp\_unclassified:\*  
15: sp\_virus:\*  
16: sp\_bacteriap:\*  
17: sp\_archaeap:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	135	91.8	115	13 Q90Y43	Q90Y43 osteoglossu
2	130	88.4	114	13 Q90Y42	Q90Y42 pantodon bu
3	123	83.7	28	13 Q9PRN9	Q9PRN9 carassius a
4	119	81.0	114	13 Q90Y41	Q90Y41 gnathoniemus
5	119	81.0	114	13 Q90Y40	Q90Y40 chitalla chi
6	114	77.6	25	13 Q9PRV0	Q9PRV0 anguilla ja
7	107	72.8	114	13 Q8JHX5	Q8JHX5 brachydanio
8	107	72.8	120	13 Q90Y39	Q90Y39 catostomus
9	105	71.4	116	13 Q90XE1	Q90XE1 acipenser t
10	92	62.6	111	13 Q90XE0	Q90XE0 acipenser t
11	85.5	58.2	23	13 Q9PRV6	Q9PRV6 anguilla ja
12	75	51.0	107	13 Q9DDE4	Q9DDE4 brachydanio
13	65	44.2	122	4 Q8IDV6	Q8IDV6 homo sapien
14	65	44.2	164	4 Q8NFES	Q8NFES homo sapien
15	56.5	38.4	1209	10 Q9SGS6	Q9SGS6 arabidopsis
16	52	35.4	316	10 Q9SRX1	Q9SRX1 arabidopsis

17	52	35.4	496	16 Q8NVQ8	Q8NVQ8 staphylococ
18	52	35.4	1402	3 Q8NIV6	Q8NIV6 neurospora
19	51	34.7	93	3 Q8X1C4	Q8X1C4 talaromyces
20	51	34.7	95	5 Q8T0N9	Q8T0N9 drosophila
21	51	34.7	101	15 Q65922	Q65922 caprine art
22	49	33.3	808	13 Q42113	Q42113 brachydanio
23	49	33.3	845	5 Q9V466	Q9V466 drosophila
24	48.5	33.0	376	4 Q9NTP6	Q9NTP6 homo sapien
25	48.5	33.0	388	4 Q9Y4W0	Q9Y4W0 homo sapien
26	48.5	33.0	414	4 Q9GQY1	Q9GQY1 homo sapien
27	48.5	33.0	587	11 Q8BYX9	Q8BYX9 mus musculu
28	48.5	33.0	598	11 Q8X0Z2	Q8X0Z2 mus musculu
29	48.5	33.0	610	4 Q9UH82	Q9UH82 homo sapien
30	48.5	33.0	643	4 Q8TC92	Q8TC92 homo sapien
31	48.5	33.0	643	4 Q9NWE0	Q9NWE0 homo sapien
32	48.5	33.0	643	11 Q8BHR2	Q8BHR2 mus musculu
33	48.5	33.0	652	11 Q54858	Q54858 rattus norv
34	48.5	33.0	652	11 Q54859	Q54859 rattus norv
35	48.5	33.0	654	11 Q8R4V4	Q8R4V4 mus musculu
36	48	32.7	101	15 Q89138	Q89138 visna virus
37	48	32.7	147	16 Q8XFZ7	Q8XFZ7 salmonella
38	48	32.7	158	15 Q89124	Q89124 visna virus
39	48	32.7	158	17 Q97C56	Q97C56 thermoplasma
40	48	32.7	364	12 Q84415	Q84415 parametium
41	48	32.7	509	16 Q9X047	Q9X047 thermotoga
42	48	32.7	887	10 Q9ZSB6	Q9ZSB6 arabidopsis
43	48	32.7	910	10 Q93Y01	Q93Y01 arabidopsis
44	48	32.7	928	10 Q9T0B6	Q9T0B6 arabidopsis
45	48	32.7	937	10 Q9T0B8	Q9T0B8 arabidopsis

## ALIGNMENTS

### RESULT 1

Q90Y43 PRELIMINARY; PRT; 115 AA.  
AC Q90Y43;  
DT 01-DEC-2001 (TrEMBLrel. 19, Created)  
DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
DT 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)  
DE Preprosomatostatin.  
OS Osteoglossum bicirrhosum (silver arawana).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;  
OC Osteoglossiformes; Osteoglossidae; Osteoglossum.  
OX NCBI\_taxonomy:109271;  
RN [1]  
RP SEQUENCE FROM N.A.  
RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;  
RT "Characterization of variant somatostatin cDNAs from several  
osteoglossomorphs: molecular identification and comparative  
analysis."  
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.  
DR EMBL; AF292650; AAK97067.1;  
DR InterPro; IPR004250; Somatostatin.  
DR Pfam; PF03002; Somatostatin; 1.  
SQ SEQUENCE 115 AA; 12791 MW; D65FBD7C6F1E4EAD CRC64;

Query Match 91.8%; Score.135; DB 13; Length 115;  
Best Local Similarity 91.7%; Pred. No. 9.1e-14;  
Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 2 VDNLPKRKAGCKNFYKGTSC 25  
:|||||  
Db 92 LNNLPKRKAGCKNFYKGTSC 115

### RESULT 2

Q90Y42 PRELIMINARY; PRT; 114 AA.  
AC Q90Y42;  
DT 01-DEC-2001 (TrEMBLrel. 19, Created)

DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
 DT 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)  
 DE Preprosomatostatin.  
 OS Pantodon buchholzi (Butterflyfish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;  
 OC Osteoglossiformes; Pantodontidae; Pantodon.  
 OC NCBI\_TaxID=8276;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Al-Mahrarki A.A., Irwin D.M., Youson J.H.;  
 RT "Characterization of variant somatostatin cDNAs from several  
 RT osteoglossomorphs: molecular identification and comparative  
 RT analysis.";  
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.  
 DR EMBL; AF292651; AAK97068.1;  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 DR PIR; P03002; Somatostatin; 1.  
 SQ SEQUENCE 114 AA; 12352 MW; 7E3D44CB6A27B12F CRC64;  
 Query Match 88.4%; Score 130; DB 13; Length 114;  
 Best Local Similarity 95.5%; Pred. No. 5,7e-13;  
 Matches 21; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 Y 4 NPPRRKAGCKNFYKGTSC 25  
 DB 93 NVPRKAGCKNFYKGTSC 114  
 1:|||||  
 4 NPPRRKAGCKNFYKGTSC 25  
 1:|||||  
 93 NVPRKAGCKNFYKGTSC 114  
 1:|||||  
 RESULT 3  
 Q9PRN9 PRELIMINARY; PRT; 28 AA.  
 ID Q9PRN9  
 AC Q9PRN9  
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)  
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)  
 DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)  
 DE GSS-28-SOMATOSTATIN-like peptide.  
 OS Carassius auratus (Goldfish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Cyprinidae; Carassius.  
 OC NCBI\_TaxID=7957;  
 RN [1]  
 RP SEQUENCE.  
 RX MEDLINE=96051491; PubMed=8536941;  
 RA Tesaka T., Yano K., Yamasaki M., Ando M.;  
 RT "Somatostatin", vasoactive intestinal peptide, and granulin-like  
 RT peptides isolated from intestinal extracts of goldfish, Carassius  
 RT auratus.";  
 RL Gen. Comp. Endocrinol. 99:298-306(1995).  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 DR PIR; P03002; Somatostatin; 1.  
 SQ SEQUENCE 28 AA; 3204 MW; 15D271F677C945BE CRC64;  
 Query Match 83.7%; Score 123; DB 13; Length 28;  
 Best Local Similarity 84.0%; Pred. No. 1,8e-12;  
 Matches 21; Conservative 2; Mismatches 2; Indels 0; Gaps 0;  
 Y 1 SVDNLPERRKAGCKNFYKGTSC 25  
 DB 4 SSNLPARRKAGCKNFYKGTSC 28  
 1:|||||  
 4 SSNLPARRKAGCKNFYKGTSC 28  
 1:|||||  
 RESULT 4  
 Q90F41 PRELIMINARY; PRT; 114 AA.  
 ID Q90F41  
 AC Q90F41  
 DT 01-DEC-2001 (TrEMBLrel. 19, Created)  
 DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
 DT 01-MAR-2002 (TrEMBLrel. 20, Last annotation update)  
 DE Preprosomatostatin.  
 OS Gnathonemus petersi.  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;  
 OC Osteoglossiformes; Mormyridae; Gnathonemus.  
 OC NCBI\_TaxID=42645;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Al-Mahrarki A.A., Irwin D.M., Youson J.H.;  
 RT "Characterization of variant somatostatin cDNAs from several  
 RT osteoglossomorphs: molecular identification and comparative  
 RT analysis.";  
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.  
 DR EMBL; AF292652; AAK97069.1;  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 DR PIR; P03002; Somatostatin; 1.  
 SQ SEQUENCE 114 AA; 12494 MW; 454DA57A309CA8F2 CRC64;  
 Query Match 81.0%; Score 119; DB 13; Length 114;  
 Best Local Similarity 95.2%; Pred. No. 3,3e-11;  
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 Y 5 LPPRRKAGCKNFYKGTSC 25  
 DB 94 LAPRRKAGCKNFYKGTSC 114  
 1:|||||  
 5 LPPRRKAGCKNFYKGTSC 25  
 1:|||||  
 94 LAPRRKAGCKNFYKGTSC 114  
 1:|||||  
 RESULT 5  
 Q90Y40 PRELIMINARY; PRT; 114 AA.  
 ID Q90Y40  
 AC Q90Y40  
 DT 01-DEC-2001 (TrEMBLrel. 19, Created)  
 DT 01-DEC-2001 (TrEMBLrel. 19, Last sequence update)  
 DT 01-JUN-2002 (TrEMBLrel. 21, Last annotation update)  
 DE Preprosomatostatin.  
 OS Chitala chitala (clown knifefish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;  
 OC Osteoglossiformes; Notopteridae; Chitala.  
 OC NCBI\_TaxID=112163;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Al-Mahrarki A.A., Irwin D.M., Youson J.H.;  
 RT "Characterization of variant somatostatin cDNAs from several  
 RT osteoglossomorphs: molecular identification and comparative  
 RT analysis.";  
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.  
 DR EMBL; AF292653; AAK97070.1;  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 DR PIR; P03002; Somatostatin; 1.  
 SQ SEQUENCE 114 AA; 12561 MW; 4E3C32F58E34F971 CRC64;  
 Query Match 81.0%; Score 119; DB 13; Length 114;  
 Best Local Similarity 95.2%; Pred. No. 3,3e-11;  
 Matches 20; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 Y 5 LPPRRKAGCKNFYKGTSC 25  
 DB 94 LAPRRKAGCKNFYKGTSC 114  
 1:|||||  
 5 LPPRRKAGCKNFYKGTSC 25  
 1:|||||  
 94 LAPRRKAGCKNFYKGTSC 114  
 1:|||||  
 RESULT 6  
 Q9PRV0 PRELIMINARY; PRT; 25 AA.  
 ID Q9PRV0  
 AC Q9PRV0  
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)  
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)  
 DT 01-DEC-2001 (TrEMBLrel. 19, Last annotation update)  
 DE Somatostatin-related peptide.  
 OS Anguilla japonica (Japanese eel).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Anguilliformes; Anguillidae;  
 OC Anguilla.  
 OC NCBI\_TaxID=7937;  
 RN [1]  
 RP SEQUENCE.

RX MEDLINE-95053622; PubMed-7525832;  
 RA Uesaka T, Yano K., Yamasaki M., Nagashima K., Ando M.;  
 RT "Somatostatin-related peptides isolated from the eel gut: effects on  
 ion and water absorption across the intestine of the seawater eel.";  
 EL J. Exp. Biol. 188:205-216(1994).  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SO SEQUENCE 25 AA; 2860 MW; BFC672143A0A3F5 CRC64;

Query Match 77.6%; Score 114; DB 13; Length 25;  
 Best Local Similarity 84.0%; Pred. No. 4.3e-11;  
 Matches 21; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

QY 1 SVDNLPFRKAGCKNFYKGTSC 25  
 DB 1 SVDNQGRKAGCKNFYKGTSC 25

RESULT 7  
 Q8JHX5 PRELIMINARY; PRT; 114 AA.  
 AC Q8JHX5  
 DT 01-OCT-2002 (TREMBlrel. 22, Created)  
 DT 01-OCT-2002 (TREMBlrel. 22, Last sequence update)  
 DT 01-MAR-2003 (TREMBlrel. 23, Last annotation update)  
 DE Somatostatin-14.  
 OS SSI.  
 GN Brachydanio rerio (Zebrafish) (Danio rerio)  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Cyprinidae; Danio.  
 OC NCBI\_TaxID=7955;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE-22045842; PubMed-12049777;  
 RA Devos N., Arfentian G., Biemar F., Bortolussi M., Martial J.A.,  
 RA Peers B., Delgion F.;  
 RT "Differential expression of two somatostatin genes during zebrafish  
 embryonic development.";  
 RL Mech. Dev. 115:133-137(2002).  
 DR EMBL: AF435965; AAM54072.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SO SEQUENCE 114 AA; 13416 MW; 3D41424AE54E74C8 CRC64;

Query Match 72.8%; Score 107; DB 13; Length 114;  
 Best Local Similarity 85.7%; Pred. No. 2.7e-09;  
 Matches 18; Conservative 1; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 DB 94 LAPRRKAGCKNFYKGTSC 114

RESULT 8  
 Q90Y39 PRELIMINARY; PRT; 120 AA.  
 AC Q90Y39  
 DT 01-DEC-2001 (TREMBlrel. 19, Created)  
 DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)  
 DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)  
 DE preprosomatostatin.  
 OS Catostomus commersoni (White sucker).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Catostomidae; Catostomus.  
 OC NCBI\_TaxID=7971;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;  
 RT "Molecular cloning and characterization of white sucker  
 preprosomatostatin.";  
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.

DR EMBL: AF292634; AAK97071.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SO SEQUENCE 120 AA; 13783 MW; 00828D35263E8805 CRC64;

Query Match 72.8%; Score 107; DB 13; Length 120;  
 Best Local Similarity 72.0%; Pred. No. 2.9e-09;  
 Matches 18; Conservative 3; Mismatches 4; Indels 0; Gaps 0;

QY 1 SVDNLPFRKAGCKNFYKGTSC 25  
 DB 96 NTNOLYPRKAGCKNFYKGTSC 120

RESULT 9  
 Q90XE1 PRELIMINARY; PRT; 116 AA.  
 AC Q90XE1  
 DT 01-DEC-2001 (TREMBlrel. 19, Created)  
 DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)  
 DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)  
 DE Somatostatin.  
 OS Acipenser transmontanus (White sturgeon).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Chondrostei; Acipenseriformes; Acipenseridae;  
 OC Acipenser.  
 OC NCBI\_TaxID=7904;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Brain;  
 RA Trabucchi M., Tostivint H., Lihmann I., Sollars C., Vallarino M.,  
 RA Dore R.M., Vaudry H.;  
 RT "Polygenic expression of somatostatin in the sturgeon Acipenser  
 transmontanus: molecular cloning and distribution of the mRNAs  
 encoding two somatostatin precursors.";  
 RL J. Comp. Neurol. 0:0-0(2001).  
 DR EMBL: AF395849; AAL13248.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SO SEQUENCE 116 AA; 12616 MW; 72E0C3FF6C80650F CRC64;

Query Match 71.4%; Score 105; DB 13; Length 116;  
 Best Local Similarity 81.0%; Pred. No. 5.8e-09;  
 Matches 17; Conservative 2; Mismatches 2; Indels 0; Gaps 0;

QY 5 LPPRRKAGCKNFYKGTSC 25  
 DB 96 MAPRRKAGCKNFYKGTSC 116

RESULT 10  
 Q90XE0 PRELIMINARY; PRT; 111 AA.  
 AC Q90XE0  
 DT 01-DEC-2001 (TREMBlrel. 19, Created)  
 DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)  
 DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)  
 DE Somatostatin pro2.  
 OS Acipenser transmontanus (White sturgeon).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Chondrostei; Acipenseriformes; Acipenseridae;  
 OC Acipenser.  
 OC NCBI\_TaxID=7904;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RC TISSUE=Brain;  
 RA Trabucchi M., Tostivint H., Lihmann I., Sollars C., Vallarino M.,  
 RA Dore R.M., Vaudry H.;  
 RT "Polygenic expression of somatostatin in the sturgeon Acipenser  
 transmontanus: molecular cloning and distribution of the mRNAs  
 encoding two somatostatin precursors.";  
 RL J. Comp. Neurol. 0:0-0(2001).  
 DR EMBL: AF395850; AAL13249.1;

DR InterPro; IPR004250; Somatostatin.  
DR Pfam; PF03002; Somatostatin; 1.  
SQ SEQUENCE 111 AA; 12748 MW; 4E27DB90896A9025 CRC64;

Query Match 62.6%; Score 92; DB 13; Length 111;  
Best Local Similarity 66.7%; Pred. No. 6.7e-07;  
Matches 16; Conservative 2; Mismatches 6; Indels 0; Gaps 0;

QY 2 VDNLPPEKRGKAGKFNFKGFTSC 25  
DB 88 LSQPLRKARKCKNFKFKFTSC 111

## RESULT 11

ID Q9PRV6 PRELIMINARY; PRT; 23 AA.

AC Q9PRV6; 2000 (TREMBLrel. 13, Created)  
DT 01-MAY-2000 (TREMBLrel. 13, Last sequence update)  
DE Somatostatin homolog (Fragment).  
OS Arguilla japonica (Japanese eel).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Actinopterygii; Neopterygii; Teleostei; Anguilliformes; Anguillidae;  
C Anguilla.  
NCBI\_TaxID=7937;  
RN [1]  
RP SEQUENCE.

RA MEDLINE=95003944; PubMed=7765422;  
RX Uesaka T., Yano K., Yamasaki M., Ando M.;  
Zool. Sci. 11:491-494(1994).  
FT NON\_TER 1  
FT NON\_TER 23  
SQ SEQUENCE 23 AA; 2655 MW; BA4317DFF3BDBD29 CRC64;

Query Match 58.2%; Score 85.5; DB 13; Length 23;  
Best Local Similarity 79.2%; Pred. No. 1.5e-06;  
Matches 19; Conservative 0; Mismatches 4; Indels 1; Gaps 1;

QY 1 SVDNLPPEKRGKAGKFNFKGFTS 24  
DB 1 SVDNQGRRKAG-KNFKGFTS 23

## RESULT 12

ID Q9DDE4 PRELIMINARY; PRT; 107 AA.

AC Q9DDE4; 2001 (TREMBLrel. 16, Created)  
DT 01-MAR-2001 (TREMBLrel. 16, Last sequence update)  
DE Somatostatin.  
OS Brachydanio rerio (Zebrafish) (Danio rerio).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
Cyprinidae; Danio.  
NCBI\_TaxID=7955;  
RN [1]  
RP SEQUENCE FROM N.A.

RA MEDLINE=99425190; PubMed=10495291;  
RX Argenton F., Zecchin E., Bortolussi M.;  
"Early appearance of pancreatic hormone-expressing cells in the  
zebrafish embryo.";  
RL Mech. Dev. 87:217-221(1999).  
DR EMBL; AJ238017; CAC20110.1;  
DR ZFIN; ZDB-GENE-010219-2; smst.  
DR InterPro; IPR004250; Somatostatin.  
DR Pfam; PF03002; Somatostatin; 1.  
SQ SEQUENCE 107 AA; 11839 MW; E12C923B56642EFB CRC64;

Query Match 51.0%; Score 75; DB 13; Length 107;

Best Local Similarity 64.7%; Pred. No. 0.00034;  
Matches 11; Conservative 3; Mismatches 3; Indels 0; Gaps 0;

QY 9 ERKAGCKNFYKKGFTSC 25  
DB 91 ERKAGCKNFYKKGFTAC 107

## RESULT 13

ID Q8IUV6 PRELIMINARY; PRT; 122 AA.

AC Q8IUV6; 2003 (TREMBLrel. 23, Created)  
DT 01-MAR-2003 (TREMBLrel. 23, Last sequence update)  
DE 01-MAR-2003 (TREMBLrel. 23, Last annotation update)  
DE Similar to cortistatin (Fragment).  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.

RA TISSUE=Brain;  
RC Strausberg R.;  
Submitted (NOV-2002) to the EMBL/GenBank/DBJ databases.  
DR EMBL; BC040034; AAH40034.1;  
FT NON\_TER 1  
FT NON\_TER 122  
SQ SEQUENCE 122 AA; 13369 MW; A1279CA09CB0CB44 CRC64;

Query Match 44.2%; Score 65; DB 4; Length 122;  
Best Local Similarity 40.7%; Pred. No. 0.015;  
Matches 11; Conservative 5; Mismatches 7; Indels 4; Gaps 1;

QY 3 DNLPP-----RERKAGCKNFYKKGFTSC 25  
DB 95 EGAPPQOSARRDRMPCRNFFKFTSSC 121

## RESULT 14

ID Q8NFE5 PRELIMINARY; PRT; 164 AA.

AC Q8NFE5  
DT 01-OCT-2002 (TREMBLrel. 22, Created)  
DE 01-OCT-2002 (TREMBLrel. 22, Last sequence update)  
DE 01-MAR-2003 (TREMBLrel. 23, Last annotation update)  
DE Hypothetical protein.  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
NCBI\_TaxID=9606;  
RN [1]  
RP SEQUENCE FROM N.A.

RA Cai Q., Guo J.H., Yu L.;  
Submitted (JUN-2002) to the EMBL/GenBank/DBJ databases.  
DR EMBL; AF521016; AAH70482.1;  
DR InterPro; IPR004822; Histone.Core.  
DR InterPro; IPR004250; Somatostatin.  
DR Pfam; PF03002; Somatostatin; 1.  
KW Hypothetical protein.  
SQ SEQUENCE 164 AA; 19047 MW; 389682C41252426A CRC64;

Query Match 44.2%; Score 65; DB 4; Length 164;  
Best Local Similarity 40.7%; Pred. No. 0.021;  
Matches 11; Conservative 5; Mismatches 7; Indels 4; Gaps 1;

QY 3 DNLPP-----RERKAGCKNFYKKGFTSC 25  
DB 137 EGAPPQOSARRDRMPCRNFFKFTSSC 163

## RESULT 15

ID Q9SGS6 PRELIMINARY; PRT; 1209 AA.



```

AC Q9SGS6;
AD 01-MAY-2000 (TEMBLRel. 13, Created)
AE DT
AF 01-MAY-2000 (TEMBLRel. 13, Last sequence update)
AG DT
AH 01-MAY-2003 (TEMBLRel. 23, Last annotation update)
AI DE
AJ T6H22.22 protein (Fragment).
AK T6H22.22.
AL GN
AM Arabidopsis thaliana (Mouse-ear cress).
AN OS
AO Eukaryota; Viridiplantae; Streptophyta;
AP OC
AQ Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosidae;
AR OC
AS eucotids II; Brassicales; Brassicaceae; Arabidopsi.
AT OC
AU NCBI_TaxID=3702;
AV [1]
AW SEQUENCE FROM N.A.
AX RA
AY Federpiegl N.A., Palm C.J., Conway A.B., Hansen N.P.,
AZ RA
BA Alfati H., Nguyen M., Lam B., Buehler E., Dunn P., Gonzalez A.,
BB RA
BC Kremenetskaia I., Kim C., Lenz C., Li J., Liu S., Lutos S.,
BD RA
BE Schwanetz J., Shinn P., Toriumi M., Vysotskaia V.S., Walker M., Yu G.,
BF RA
BG Eckert J., Theologis A., Davis R.W.;
BH RA
BI Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
BJ RL
BK EMBL; AC009894; AAF02849.1;
BL DR
BM InterPro: IPR000197; TAZ_finger.
BN DR
BO InterPro: IPR001965; znf_PHD.
BP DR
BQ InterPro: IPR000433; znf_PZ.
BR DR
BS Pfam: PF02135; zf-TAZ; 1.
BT DR
BU SMART: SM00249; PHD; 1.
BV DR
BW SMART: SM00551; znf_TAZ; 1.
BX DR
BY SMART: SM00291; znf_PZ; 1.
BZ DR
CA PROSITE; PS0134; zf_TAZ; 1.
CB DR
CC PROSITE; PS01357; zf_PZ; 1.
CD DR
CE PROSITE; PS0135; zf_PZ; 1.
CF DR
CG NONTER
CH FT
CI SQ
CJ SEQUENCE 1209 AA; 136994 MW; E7A280F0970CD53 CRC64;
CK
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CO
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CQ
CR
CS
CT
CU
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CW
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DQ
DR
DS
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YW
YX
YY
YZ
ZQ
ZR
ZS
ZT
ZU
ZV
ZW
ZX
ZY
ZZ

```

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:45:37 ; Search time 26.2051 Seconds  
(without alignments)  
84.799 Million cell updates/sec

Title: US-09-727-739b-2

Perfect score: 89

Sequence: 1 AGCKNFYWGFTSC 14

Scoring table: BLOSUM62

Gapop 10.0 , Capext 0.5

Searched: 1107863 seqs, 158726573 residues.

Total number of hits satisfying chosen parameters: 1107863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

A\_Geneseq\_19Jun03.\*  
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2: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1981.DAT.\*  
3: /SIDS1/gcgdata/geneseq/geneseq-emb1/AA1982.DAT.\*  
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	89	100.0	14	22 AAU07665	Rainbow trout soma
2	89	100.0	111	22 AAU07668	Rainbow trout prep
3	89	100.0	115	22 AAU07667	Rainbow trout prep
4	89	100.0	125	3 AAP20029	Sequence of prepro
5	83	93.3	14	7 AAP60190	Somatostatin-28 an
6	83	93.3	28	7 AAP61714	Somatostatin-28 an
7	83	93.3	28	10 AAP90989	Analogue of angler
8	77	86.5	14	2 AAP10324	Somatostatin deriv
9	77	86.5	14	2 AAP10421	Somatostatin glyco

10	77	86.5	14	3 AAP20165	Somatostatin. Syn
11	77	86.5	14	4 AAP30668	Sequence of synthe
12	77	86.5	14	5 AAP40316	Sequence encoded b
13	77	86.5	14	5 AAP40808	Sequence encoded b
14	77	86.5	14	7 AAP60863	Somatostatin. Mam
15	77	86.5	14	8 AAP70928	N-acylated somatos
16	77	86.5	14	10 AAP94654	Somatostatin as en
17	77	86.5	14	13 AAP30543	Metal-radionuclide
18	77	86.5	14	14 AAP38652	Sequence encoded b
19	77	86.5	14	15 AAP50276	Somatostatin S14.
20	77	86.5	14	16 AAP01514	Somatostatin-14.
21	77	86.5	14	16 AAP95412	Somatostatin-14.
22	77	86.5	14	17 AAP29332	Somatostatin pepti
23	77	86.5	14	19 AAP68299	Somatostatin analo
24	77	86.5	14	19 AAP51858	Somatostatin analo
25	77	86.5	14	19 AAP50948	Somatostatin analo
26	77	86.5	14	19 AAP50940	Somatostatin pept
27	77	86.5	14	19 AAP4018	Corticostatin-activ
28	77	86.5	14	20 AAP50231	Neurophil-activat
29	77	86.5	14	20 AAP30620	CILA-4 VLD CDR 100
30	77	86.5	14	20 AAP30964	Non-crosslinked pr
31	77	86.5	14	20 AAP97182	Somatostatin pepti
32	77	86.5	14	21 AAP08301	Amino acid sequenc
33	77	86.5	14	21 AAP94479	Human somatostatin
34	77	86.5	14	21 AAP91200	Somatostatin, SEQ
35	77	86.5	14	21 AAP68596	Peptide sequence o
36	77	86.5	14	22 AAU05145	Receptor-selective
37	77	86.5	14	22 AAP83200	Human somatostatin
38	77	86.5	14	22 AAP91001	Somatostatin relat
39	77	86.5	14	22 AAP91015	Somatostatin relat
40	77	86.5	14	22 AAP91027	Somatostatin relat
41	77	86.5	14	22 AAP97705	Human melanin-conc
42	77	86.5	14	22 AAP73942	Human somatostatin
43	77	86.5	14	22 AAP48155	Rat somatostatin-1
44	77	86.5	14	22 AAP45615	Somatostatin pepti
45	77	86.5	14	22 AAP45659	Somatostatin pepti

#### ALIGNMENTS

##### RESULT 1

AAU07665  
ID AAU07665 standard; Peptide; 14 AA.

AC AAU07665;

DT 04-DEC-2001 (first entry)

DE Rainbow trout somatostatin 14 (SS-14) variant peptide sequence.

DE Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
PPSS-II; PPSS-III; endocrine tumour; pituitary gland; diabetes mellitus;  
KW gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
KW carcinoid syndrome; cell proliferation; apoptosis; growth hormone; SS-14;  
KW glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV;  
KW epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective;  
KW neoplasm; metastasis; gene therapy; antidiabetic; nootropic; cytostatic;  
KW anti-human immunodeficiency virus; osteopathic; anticonvulsant.

OS Oncorhynchus mykiss.

PN CA2325169-A1.

PD 03-JUN-2001.

PF 01-DEC-2000; 2000CA-2325169.

PR 03-DEC-1999; 99US-0168934.

PA (NDSU-) NDSU RES FOUND.

PI Sheridan MA, Moore CA, Kittelson JD;

XX WPI; 2001-425997/46.  
 XX New somatostatin polypeptides derived from Oncorhynchus mykiss, useful  
 PT for treating diabetes mellitus, acromegaly, gastrinoma, acquired  
 PT immunodeficiency syndrome and neurological disorders -  
 XX  
 PS Claim 2; Fig 6; 52pp; English.  
 XX  
 CC The invention relates to an Oncorhynchus mykiss somatostatin polypeptide  
 CC containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of  
 CC preprosomatostatin II (PPSS-II). The protein sequences and their  
 CC associated polynucleotides are useful for identifying modified  
 CC somatostatin polypeptides which functions as a somatostatin agonist useful  
 CC for research, therapeutics or diagnostics, including medical and  
 CC veterinary applications. The wild-type somatostatin and its modified  
 CC version are useful for treating hypersecretion from endocrine tumours in  
 CC the pituitary (e.g. acromegaly) or gastroenteropancreatic tumours in  
 CC gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage  
 CC through their effects on cell proliferation and apoptosis and as adjuncts  
 CC in the treatment of diabetes mellitus via inhibition of growth hormone  
 CC and glucagon. In addition, dysfunctional somatostatin secretion is  
 CC associated with acquired immunodeficiency syndrome (AIDS) and various  
 CC neurological disorders (e.g. epilepsy, Alzheimer's disease and  
 CC Huntington's disease) and somatostatin antagonists are effective in the  
 CC treatment of such conditions. Nucleic acids encoding the polypeptides are  
 CC useful in gene therapy and fusion peptides can be targeted to neoplasms  
 CC and their metastases, inhibiting the release of their secretory products.  
 CC This sequence represents a variant somatostatin 14 (SS-14) peptide.  
 XX  
 SQ Sequence 14 AA;  
 Query Match 100.0%; Score 89; DB 22; Length 14;  
 Best Local Similarity 100.0%; Pred. No. 6.5e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGFSTC 14  
 |||||  
 DB 1 AGCKNFYWKGFSTC 14  
 |||||  
 RESULT 2  
 AAU07668  
 ID AAU07668 standard; Protein; 111 AA.  
 AC AAU07668;  
 XX  
 XX 04-DEC-2001 (first entry)  
 XX  
 XX Rainbow trout preprosomatostatin II (PPSS-II') polypeptide.  
 XX  
 KW Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
 KW PPSS-II'; endocrine tumour; pituitary gland; glucagonoma; AIDS;  
 KW gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;  
 KW carcinoid syndrome; cell proliferation; apoptosis; growth hormone;  
 KW glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV;  
 KW epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective;  
 KW neoplasm; metastasis; gene therapy; antidiabetic; neotropic; cytostatic;  
 KW anti-human immunodeficiency virus; osteopathic; anticonvulsant.  
 XX  
 OS Oncorhynchus mykiss.  
 XX  
 XX Key Location/Qualifiers  
 FH Peptide 1..25  
 FT /note= "Signal peptide"  
 FT Protein 1..86  
 FT /note= "PPSS-II' pre-sequence"  
 FT Protein 26..111  
 FT /note= "Mature PPSS-II'"  
 FT Peptide 87..111  
 FT /note= "PPSS-II' pro-sequence"  
 FT Peptide /note= "Prosomatostatin II'"

FT Cleavage-site 96..97 /note= "Dibasic cleavage site"  
 FT Peptide 98..111  
 FT /note= "SS-14 variant peptide"  
 PN CA2325169-A1.  
 XX  
 XX 03-JUN-2001.  
 XX  
 XX 01-DEC-2000; 2000CA-2325169.  
 XX  
 XX 03-DEC-1999; 99US-0168934.  
 XX  
 XX (NDSU-) NDSU RES FOUND.  
 XX  
 XX Sheridan MA, Moore CA, Kittelson JD;  
 XX WPI; 2001-425997/46.  
 DR N-PSDB; AAS12935.  
 XX  
 XX New somatostatin polypeptides derived from Oncorhynchus mykiss, useful  
 PT for treating diabetes mellitus, acromegaly, gastrinoma, acquired  
 PT immunodeficiency syndrome and neurological disorders -  
 XX  
 PS Claim 1; Fig 3; 52pp; English.  
 XX  
 CC The invention relates to an Oncorhynchus mykiss somatostatin polypeptide  
 CC containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of  
 CC preprosomatostatin II (PPSS-II). The protein sequences and their  
 CC associated polynucleotides are useful for identifying modified  
 CC somatostatin polypeptides which functions as a somatostatin agonist useful  
 CC for research, therapeutics or diagnostics, including medical and  
 CC veterinary applications. The wild-type somatostatin and its modified  
 CC version are useful for treating hypersecretion from endocrine tumours in  
 CC the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g.  
 CC gastrinoma, glucagonoma, carcinoid syndrome) to cause tumour shrinkage  
 CC through their effects on cell proliferation and apoptosis and as adjuncts  
 CC in the treatment of diabetes mellitus via inhibition of growth hormone  
 CC and glucagon. In addition, dysfunctional somatostatin secretion is  
 CC associated with acquired immunodeficiency syndrome (AIDS) and various  
 CC neurological disorders (e.g. epilepsy, Alzheimer's disease and  
 CC Huntington's disease) and somatostatin antagonists are effective in the  
 CC treatment of such conditions. Nucleic acids encoding the polypeptides are  
 CC useful in gene therapy and fusion peptides can be targeted to neoplasms  
 CC and their metastases, inhibiting the release of their secretory products.  
 CC This sequence represents O. Mykiss PPSS-II' protein.  
 CC Note: The features for this sequence are specifically claimed in the  
 CC specification.  
 XX  
 SQ Sequence 111 AA;  
 Query Match 100.0%; Score 89; DB 22; Length 111;  
 Best Local Similarity 100.0%; Pred. No. 4.7e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGFSTC 14  
 |||||  
 DB 98 AGCKNFYWKGFSTC 111  
 |||||  
 RESULT 3  
 AAU07667  
 ID AAU07667 standard; Protein; 115 AA.  
 AC AAU07667;  
 XX  
 XX 04-DEC-2001 (first entry)  
 XX  
 XX Rainbow trout preprosomatostatin II (PPSS-II') polypeptide.  
 XX  
 KW Rainbow trout; somatostatin; preprosomatostatin; hypersecretion; PPSS-I;  
 KW PPSS-II'; endocrine tumour; pituitary gland; glucagonoma; AIDS;  
 KW gastroenteropancreatic tissue; acromegaly; gastrinoma; diabetes mellitus;

carcinoid syndrome; cell proliferation; apoptosis; growth hormone; glucagon; acquired immunodeficiency syndrome; neurological disorder; HIV; epilepsy; Alzheimer's disease; Huntington's disease; neuroprotective; neoplasm; metastasis; gene therapy; antidiabetic; neutropenic; cytostatic; anti-human immunodeficiency virus; osteopathic; anticonvulsant.

Oncorhynchus mykiss.

Key Location/Qualifiers  
 Peptide 1..25 /note= "Signal peptide"  
 Protein 1..87 /note= "PPSS-II' pre-sequence"  
 Protein 26..115 /note= "Mature PPSS-II"  
 Misc-difference 74 /note= "Encoded by CAA"  
 Peptide 88..101 /note= "PPSS-II' pro-sequence"  
 Peptide 88..115 /note= "Prosomatostatin II"  
 Cleavage-site 100..101 /note= "Dibasic cleavage site"  
 Peptide 102..115 /note= "SS-14 variant peptide"

CA2325169-A1.

03-JUN-2001.

01-DEC-2000; 2000CA-2325169.

03-DEC-1999; 99US-0168934.

(NDSU-) NDSU RES FOUND.

Sheridan MA, Moore CA, Kittelson JD;

WPI: 2001-425997/46.

N-PSDB; AAS12934.

New somatostatin polypeptides derived from *Oncorhynchus mykiss*, useful for treating diabetes mellitus, acromegaly, gastrinoma, acquired immunodeficiency syndrome and neurological disorders -

Claim 2; Fig 3; 52pp; English.

The invention relates to an *Oncorhynchus mykiss* somatostatin polypeptide containing a portion of preprosomatostatin I (PPSS-I) and/or a portion of preprosomatostatin II (PPSS-II). The protein sequences and their associated polynucleotides are useful for identifying modified somatostatin polypeptides which functions as a somatostatin agonist useful for research, therapeutics or diagnostics, including medical and veterinary applications. The wild-type somatostatin and its modified version are useful for treating hypersecretion from endocrine tumours in the pituitary (e.g. acromegaly) or gastroenteropancreatic tissues (e.g. gastrinoma, glucagonoma, carcinoid syndrome), to cause tumour shrinkage through their effects on cell proliferation and apoptosis and as adjuncts in the treatment of diabetes mellitus via inhibition of growth hormone and glucagon. In addition, dysfunctional somatostatin secretion is associated with acquired immunodeficiency syndrome (AIDS) and various neurological disorders (e.g. epilepsy, Alzheimer's disease and Huntington's disease) and somatostatin antagonists are effective in the treatment of such conditions. Nucleic acids encoding the polypeptides are useful in gene therapy and fusion peptides can be targeted to neoplasms and their metastases, inhibiting the release of their secretory products. This sequence represents O. Mykiss PPSS-II' protein.

Note: The features for this sequence are specifically claimed in the specification.

Sequence 115 AA;

Query Match 100.0%; Score 89; DB 22; Length 115;

Best Local Similarity 100.0%; Pred. No. 4.9e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGTSC 14  
 Db 102 AGCKNFYWKGTSC 115  
 |||||

RESULT 4

AAP20029

ID AAP20029 standard; Protein; 125 AA.

XX AAP20029;

XX 25-MAR-2003 (updated)

DT 16-AUG-2002 (updated)

DT 14-AUG-1992 (first entry)

XX Sequence of preprosomatostatin-2 encoded on pLAS2.

XX Somatostatin; growth hormone; peptide hormone; secretion.

XX *Lophius americanus*.

XX Key Location/Qualifiers

FT Protein 112..125 Somatostatin II

FT /label= Somatostatin II

XX EP46669-A.

XX 03-MAR-1982

XX 21-AUG-1981; 81EP-0303825.

XX 25-AUG-1980; 80US-0181046.

XX (REGC) UNIV CALIFORNIA.

XX Hobart P, Crawford R, Pictet RL, Rutter WJ;

XX WPI; 1982-18113E/10.

XX N-PSDB; AAN20034.

XX New somatostatin and precursors - produced by transformed

XX microorganisms

XX Example; Fig 3; 50pp; English.

XX The inventors claim preprosomatostatin-1, preprosomatostatin-1, preprosomatostatin-2, preprosomatostatin-2 and somatostatin-1, and DNA encoding them. The translation of somatostatin mRNA yields a precursor (prepro-SI) containing a signal peptide which may be released during the transit into the endoplasmic reticulum, and the resultant precursor (pro SI) is subsequently cleaved to yield SI itself. The prepeptide portion of prepro SI is probably about 20-25 bases long. Translation of portion of prepro SI predicts the sequence of a 125 AA peptide which surprisingly contains a 14 AA sequence at its carboxy terminus which differs from SI by only 2 AAs, and is termed Somatostatin 2 (S2).  
 CC (Updated on 16-AUG-2002 to add missing OS field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 125 AA;

Query Match 100.0%; Score 89; DB 3; Length 125;

Best Local Similarity 100.0%; Pred. No. 5.3e-06;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
 Db 112 AGCKNFYWKGTSC 125  
 |||||

RESULT 5  
 ID AAP60190 standard; protein; 14 AA.  
 AC AAP60190;  
 XX 25-MAR-2003 (updated)  
 DT 28-JUL-1991 (first entry)  
 XX Somatostatin-28 analogue.  
 XX Somatostatin-28; insulin-selective; insulinoma.  
 XX Synthetic.  
 XX Key Location/Qualifiers  
 FT Modified-site 9 /label= Hyl  
 FT  
 XX EP173527-A.  
 XX 05-MAR-1986.  
 XX 16-AUG-1985; 85EP-0305867.  
 XX 31-AUG-1984; 84US-0646610.  
 PR 01-APR-1987; 87US-0033295.  
 XX (SALK ) SALK INST BIOLOGICAL STUDIES.  
 XX Spiess J, Noe BD;  
 XX WPI; 1986-063363/10.  
 XX Angler fish somatostatin-28 and analogue and fragment - useful in  
 inhibiting insulin secretion in insulinoma.  
 XX Claim 4; Page 18; 19pp; English.  
 XX The protein sequence is an insulin-selective analogue  
 of anglerfish somatostatin-28, which is more potent than  
 somatostatin-14 or somatostatin-28 in inhibiting insulin  
 secretion for treatment of insulinoma.  
 CC (Updated on 25-MAR-2003 to correct PR field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 XX Sequence 14 AA;  
 Query Match 93.3%; Score 83; DB 7; Length 14;  
 Best Local Similarity 92.9%; Pred. No. 5.3e-06;  
 Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 DB 1 AGCKNFYWGFTSC 14  
 1 AGCKNFYWGFTSC 14

RESULT 6  
 ID AAP61714 standard; Protein; 28 AA.  
 AC AAP61714;  
 XX 25-MAR-2003 (updated)  
 DT 28-JUL-1991 (first entry)  
 XX Somatostatin-28 analogue.  
 XX Somatostatin-28; insulin-selective; insulinoma.  
 XX Synthetic.  
 XX Key Location/Qualifiers

FT Misc-difference 23 /label= Hyl, Lys.  
 FT  
 XX EP173527-A.  
 XX 05-MAR-1986.  
 XX 16-AUG-1985; 85EP-0305867.  
 XX 31-AUG-1984; 84US-0646610.  
 PR 01-APR-1987; 87US-0033295.  
 XX (SALK ) SALK INST BIOLOGICAL STUDIES.  
 XX Spiess J, Noe BD;  
 XX WPI; 1986-063363/10.  
 XX Angler fish somatostatin-28 and analogue and fragment - useful in  
 inhibiting insulin secretion in insulinoma.  
 XX Claim 4; Page 18; 19pp; English.  
 XX The protein sequence is an insulin-selective analogue  
 of anglerfish somatostatin-28, which is more potent than  
 somatostatin-14 or somatostatin-28 in inhibiting insulin  
 secretion for treatment of insulinoma.  
 CC (Updated on 25-MAR-2003 to correct PR field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 XX Sequence 28 AA;  
 Query Match 93.3%; Score 83; DB 7; Length 28;  
 Best Local Similarity 92.9%; Pred. No. 1e-05;  
 Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWGFTSC 14  
 15 AGCKNFYWGFTSC 28  
 DB  
 RESULT 7  
 ID AAP90989 standard; peptide; 28 AA.  
 AC AAP90989;  
 XX 25-MAR-2003 (updated)  
 DT 08-JUN-1990 (first entry)  
 XX Analogue of anglerfish somatostatin 28.  
 XX Somatostatin 28; SS-28; analogue; insulin secretion  
 inhibitor; insulinoma; gastric acid secretion; thermoregulation.  
 XX Anglerfish.  
 XX Key Location/Qualifiers  
 FT Disulfide-bond 17 /note="Bonded to Cys-28"  
 FT Disulfide-bond 28 /note="Bonded to Cys-17"  
 FT Misc-difference 23 /label=Lys, Hyl  
 FT Region 15..28 /note="Also claimed"  
 XX US4816438-A.  
 XX 28-MAR-1989.  
 XX 01-APR-1987; 87US-0033295.  
 XX

PR 01-APR-1987; 87US-0033295.  
 PR 31-AUG-1984; 84US-0646610.  
 PA (SALK ) SALK INST BIOLOGICAL STUDIES.

XX Spiess J, Noe BD;  
 PI WPI; 1989-113910/15.

XX Angler fish somatostatin-28 and fragments -  
 PT useful in inhibiting insulin secretion and insulinoma.

XX Claim 1; page 65; 8pp; English.

CC It is called ASS-28 because it is an analogue of anglerfish somatostatin  
 CC (SS-28). It is more potent than either somatostatin 14 (SS-14) or SS-28  
 CC at inhibiting insulin secretion for the treatment of insulinoma. The  
 CC 14-residue C-terminal peptide is also claimed (ASS-14). ASS-14 is useful  
 CC for inhibiting insulin secretion by the pancreas. ASS-28 and ASS-28 may  
 CC be useful for decreasing gastric acid secretion and influencing  
 CC thermoregulation. Their reduced linear forms, wherein the disulphide  
 CC bridge is not present and is replaced by H, is also claimed.  
 CC (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 28 AA;

Query Match 93.3%; Score 83; DB 10; Length 28;  
 Best Local Similarity 92.9%; Pred. No. 1e-05;  
 Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWGFTSC 14  
 DB 15 AGCKNFYWGFTSC 28

RESULT 8

AAP10324  
 ID AAP10324 standard; peptide; 14 AA.

AC AAP10324;

DT 25-MAR-2003 (updated)  
 DT 15-DEC-1992 (first entry)

XX Somatostatin deriv. A28.

XX Growth Hormone secretion; GH; diabetes mellitus; angiopathy;  
 KW acromegaly; diagnosis.

XX Synthetic.

FT Key Location/Qualifiers  
 FT Modified-site 14  
 FT /note= "Cys-pyrrolidine amide"

FT CH621770-A.

XX 27-FEB-1981.

XX 11-SEP-1980; 80CH-0125375.

XX 01-FEB-1984; 84CA-0446545.

XX (SANO ) SANDOZ AG.

XX Sandrin E, Bauer W;

XX WPI; 1981-21515D/13 (21515D).

XX Somatostatin derivs. prodn. - useful for treating diabetes,  
 XX acromegalia and angiopathy

XX Example 1; Page 6; 8pp; German.

XX  
 CC  
 CC  
 CC  
 CC  
 CC  
 XX

This peptide is an example of a generic formula for somatostatin  
 derivs. which inhibit secretion of growth hormone and are useful to  
 treat diabetes mellitus, acromegaly, angiopathy and in diagnosis.  
 See AAP10308-P10348.  
 (Updated on 25-MAR-2003 to correct PR field.)

SQ Sequence 14 AA;

Query Match 86.5%; Score 77; DB 2; Length 14;

Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWGFTSC 14

DB 1 AGCKNFYWGFTSC 14

RESULT 9

AAP10421

ID AAP10421 standard; peptide; 14 AA.

XX

AC AAP10421;

DT 17-DEC-1992 (first entry)

XX Somatostatin glycosylated analogue.

XX Carbohydrate moiety; pentose; hexose; pyranose; glucose; fructose.

XX Synthetic.

FT Key Location/Qualifiers

FT Modified-site 5

FT /label= R1

FT /note= "May be opt. substd. by H or a hexose or  
 aminohexose moiety modified in the 2-position  
 with an amide group, the hexose having the  
 pyranose structure; R1-R4 are not all H"

FT Modified-site 10

FT /label= R2

FT /note= "May be opt. substd. by H or a hexose or  
 aminohexose moiety modified in the 2-position  
 with an amide group, the hexose having the  
 pyranose structure; R1-R4 are not all H"

FT Modified-site 12

FT /label= R3

FT /note= "May be opt. substd. by H or a hexose or  
 aminohexose moiety modified in the 2-position  
 with an amide group, the hexose having the  
 pyranose structure; R1-R4 are not all H"

FT Modified-site 13

FT /label= R4

FT /note= "May be opt. substd. by H or a hexose or  
 aminohexose moiety modified in the 2-position  
 with an amide group, the hexose having the  
 pyranose structure; R1-R4 are not all H"

FT Disulphide\_bond 3..14

XX US4280953-A.

XX 28-JUL-1981.

XX 08-NOV-1979; 79US-0092647.

XX 08-NOV-1979; 79US-0092647.

XX (SALK-) SALK INST BIOLOGIC.

XX Guillemin RCL, Lavielle S, Brazeau PE, Ling NC, Benoit RA;

XX WPI; 1981-60313D/33 (60313D).

XX

PT Somatostatin glycosylated analogues - with prolonged half-lives  
 XX and similar activities and potency to somatostatin  
 PS Claim 1; Page 11; 13pp; English.

XX This sequence has an extended biological half-life compared with  
 CC native somatostatin and some of its analogues. It has a long  
 CC acting inhibitory effect on growth hormone secretion by the pituitary,  
 CC secretion of glucagon and insulin by the pancreas and secretion of  
 CC vasoactive intestinal polypeptides, secretin, gastrin and gastric acid.  
 CC It has a similar inhibitory effect on native somatostatin. The  
 CC increased acting inhibitory effect of this peptide is due to the  
 CC inclusion of a carbohydrate moiety in to the somatostatin chain.  
 CC This carbohydrate moiety can be linked to either Ser, Asn or Thr  
 CC which appear in the somatostatin peptide chain. Convenient  
 CC carbohydrate moieties for incorporation are the pentose and hexose  
 CC monosaccharides, particularly those having the pyranose structure,  
 CC such as glucose and fructose.

XX Sequence 14 AA;

Query Match 86.5%; Score 77; DB 2; Length 14;

Best Local Similarity 85.7%; Pred. No. 4.3e-05; Mismatches 1; Indels 0; Gaps 0;

Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

XX 1 AGCKNFYWKGTSC 14  
 XX 1 AGCKNFYWKGTSC 14

#### RESULT 10

ID AAP20165 standard; Protein; 14 AA.

XX AAP20165;

XX 25-MAR-2003 (updated)  
 XX 15-SEP-1992 (first entry)

XX Somatostatin.

XX Somatostatin.

XX Synthetic;

XX US4356270-A.

XX 26-OCT-1982.

XX 05-NOV-1979; 79US-0091334.

XX 26-SEP-1985; 85US-0780734.

XX (GETH ) GENENTECH INC.

XX Itakura K;

XX WPI: 1982-97410E/45 (97410E).

XX N-PSDB; AAP20160.

XX Recombinant microbial cloning vehicle - for expression of  
 XX polypeptide(s), esp. hormones such as somatostatin.

XX Disclosure; Fig 2; 23pp; English.

XX The sequence represents somatostatin, which may be expressed  
 CC after synthetic gene expression in microorganisms.  
 CC (Updated on 25-MAR-2003 to correct PR field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)

XX Sequence 14 AA;

Query Match 86.5%; Score 77; DB 3; Length 14;

Best Local Similarity 85.7%; Pred. No. 4.3e-05; Mismatches 1; Indels 0; Gaps 0;

Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
 DB 1 AGCKNFYWKGTSC 14

#### RESULT 11

ID AAP30668 standard; Protein; 14 AA.

XX AAP30668;

XX 25-MAR-2003 (updated)

XX 16-AUG-2002 (updated)

XX 31-OCT-1992 (first entry)

XX Sequence of synthetic somatostatin gene.

XX Synthetic gene; heterologous protein.

XX Synthetic.

XX US4366246-A.

XX 28-DEC-1982.

XX 05-NOV-1979; 79US-0090980.

XX 26-SEP-1985; 85US-0780734.

XX (GETH ) GENENTECH INC.

XX Riggs AD;

XX WPI: 1983-07104K/03 (07104K).

XX N-PSDB; AAP30312.

XX Polypeptide prodn. by genetically transformed microorganism - in  
 XX form of cleavable conjugate with another protein

XX Disclosure; Fig 2; 23pp; English.

XX The synthetic somatostatin gene is prep'd. from oligonucleotide  
 CC fragments composed of codons preferred for the expression microbial  
 CC genomes. Where the structural gene of a desired polypeptide is to be  
 CC inserted in a cloning vehicle for expression as such, the gene is  
 CC preceded by a start codon and immediately followed by one or more  
 CC termination or stop codons. AAP30312 also exemplifies a further  
 CC feature preferred in heterologous DNA intended for recombinant  
 CC employment, i.e., the provision of cohesive termini, preferably  
 CC comprising one of the two strands of a restriction endonuclease  
 CC recognition site.  
 CC (Updated on 16-AUG-2002 to add missing OS field.)  
 CC (Updated on 25-MAR-2003 to correct PR field.)

XX Sequence 14 AA;

Query Match 86.5%; Score 77; DB 4; Length 14;

Best Local Similarity 85.7%; Pred. No. 4.3e-05; Mismatches 1; Indels 0; Gaps 0;

Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
 DB 1 AGCKNFYWKGTSC 14

#### RESULT 12

ID AAP40316 standard; Protein; 14 AA.

XX AAP40316;

XX AAP40316;

XX 11-FEB-1992 (first entry)  
 XX Sequence encoded by synthetic gene for somatostatin.  
 DE Growth hormone inhibitor; insulin inhibitor; glucagon inhibitor;  
 KW acromegaly therapy; pancreatitis; insulin-dependent diabetes.  
 XX Homo sapiens.  
 XX US4425437-A.  
 XX 10-JAN-1984.  
 XX 30-JUL-1982; 82US-0403674.  
 XX 30-JUL-1982; 82US-0403674.  
 XX 08-NOV-1977; 77US-0849591.  
 XX 05-NOV-1979; 79US-0090980.  
 XX (GETH ) GENENTECH INC.  
 XX Riggs AD;  
 XX WPI; 1984-029658/05.  
 XX N-PSDB; AAN40257.  
 XX Recombinant microbial cloning vehicle - esp. useful for host  
 XX expression of polypeptide e.g. somatostatin  
 XX Disclosure; Fig 2; 23pp; English.  
 XX The inventors claim a recombinant microbial cloning vehicle for host  
 XX expression of polypeptide. Plasmids PSOM 1 and PSOM 11 are new. The  
 XX polypeptide is expressed from a synthetic gene, and it is esp.  
 XX somatostatin e.g. described in US3904594.  
 XX Sequence 14 AA;  
 XX Query Match 86.5%; Score 77; DB 5; Length 14;  
 XX Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 XX Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 AGCKNFYWGFTSC 14  
 DB |||||:|||||  
 1 AGCKNFYWGFTSC 14

RESULT 13  
 AAP40808  
 ID AAP40808 standard; peptide; 14 AA.  
 AC AAP40808;  
 XX 16-AUG-2002 (updated)  
 DT 03-AUG-1992 (first entry)

XX Sequence encoded by synthetic somatostatin gene.  
 XX Protein conjugate; transformed bacteria; plasmid.  
 XX Synthetic.  
 XX US4431739-A.  
 XX 14-FEB-1984.  
 XX 30-JUL-1982; 82US-0403675.  
 XX 30-JUL-1982; 82US-0403657.  
 XX 08-NOV-1977; 77US-0849591.  
 XX (GETH ) GENENTECH INC.

XX Riggs AD;  
 XX WPI; 1984-056011/09.  
 XX N-PSDB; AAN40292.  
 XX Transformant bacterial culture cloned from bacteria - for  
 XX cultivation to give somatostatin etc. linked to protein  
 XX Disclosure; Fig 2; 23pp; English.  
 XX The inventors claim a transformant bacterial culture cloned from  
 XX one or more bacteria, each comprising a recombinant microbial  
 XX vehicle. The vehicle comprises: (regulon)-(codons for additional  
 XX protein) - (codons for desired heterologous polypeptide)-  
 XX (termination codon(s)). Prodn. of such protein conjugates is  
 XX described in US4366246 (071 04K/03). The heterologous protein is  
 XX esp. somatostatin or human insulin. Bacterial cultures comprising  
 XX E. coli RRI (pSMO1) and pSOM11 are claimed. The DNA and amino  
 XX acid sequences in this patent application are the same as those in  
 XX US 4366-246.  
 XX (Updated on 16-AUG-2002 to add missing OS field.)  
 XX Sequence 14 AA;  
 XX Query Match 86.5%; Score 77; DB 5; Length 14;  
 XX Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 XX Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

OY 1 AGCKNFYWGFTSC 14  
 DB |||||:|||||  
 1 AGCKNFYWGFTSC 14

RESULT 14  
 AAP60863  
 ID AAP60863 standard; protein; 14 AA.  
 XX AAP60863;  
 XX 31-OCT-2002 (updated)  
 DT 05-JUL-1991 (first entry)

XX Somatostatin.  
 XX Synthetic gene; somatostatin; cloning vehicle; beta-galactosidase;  
 XX fusion protein; vaccine; radioimmunoassay;  
 XX Mammalia.  
 XX US4563424-A.  
 XX 07-JAN-1986.  
 XX 30-JUL-1982; 82US-0403676.  
 XX 30-JUL-1982; 82US-0403676.  
 XX 08-NOV-1977; 77US-0849591.  
 XX 05-NOV-1979; 79US-0090980.  
 XX 16-OCT-1985; 85US-0787871.  
 XX (GETH ) GENENTECH INC.  
 XX Riggs AD;  
 XX WPI; 1986-035095/05.  
 XX N-PSDB; AAN60778.  
 XX Recombinant cloning vehicle contg. gene for somatostatin -  
 XX expressed as immunogenic fusion prod. with bacterial polypeptide  
 XX Disclosure; Fig. 2; 22pp; English.



CC The somatostatin is encoded by a synthetic gene, which is present in a  
 CC cloning vector. The vector also comprises a regulon, one or more  
 CC termination codons, and a DNA sequence encoding an additional protein,  
 CC eg beta-galactosidase. Somatostatin is expressed as a fusion protein  
 CC which can be cleaved with CNBr to give the two proteins. Temporary  
 CC incorporation of somatostatin into a fusion prod. protects it from  
 CC in vivo degradation by endogenous enzymes. Alternatively, the fusion  
 CC protein can be used to raise antibodies for RIA, or in the prepn. of  
 CC vaccines.  
 CC (Updated on 31-OCT-2002 to add missing OS field.)  
 XX

SQ Sequence 14 AA;

Query Match 86.5%; Score 77; DB 7; Length 14;  
 Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGFSTC 14  
 DB 1 AGCKNFYWKGFSTC 14

# RESULT 15

AA70928  
 D AAP70928 standard; protein; 14 AA.

XX X  
 AC AAP70928;

XX 25-MAR-2003 (updated)  
 DT 09-JAN-2003 (updated)  
 DT 12-MAR-1991 (first entry)  
 XX

XX N-acylated somatostatin deriv.

XX Somatostatin; diabetes; gastrointestinal disorders.

XX Unidentified.

XX Key Location/Qualifiers  
 FT Modified-site 1.1  
 FT /label- N-acylated alanine  
 FT Modified-site 4.4  
 FT /label- N-acylated lysine  
 FT Modified-site 9.9  
 FT /label- N-acylated lysine  
 FT Disulfide-bond 3.14  
 XX DE3522638-A.

XX 08-JAN-1987.

XX 25-JUN-1985; 85DE-3522638.  
 XX 25-JUN-1985; 85DE-3522638.

XX (DIAL ) DIAMALT AG.  
 PA (JUNG/) JUNG G.  
 XX Jung G;

XX WPI; 1987-008083/02.

XX New N-acylated somatostatin derivs. - useful for treating  
 XX diabetes and gastrointestinal disorders  
 XX Claim 1; page 1; 3pp; German.

XX This somatostatin deriv. has the same activity as natural somato-  
 CC statin but has a more specific and longer lasting action. It is  
 CC useful in the treatment of diabetes and gastrointestinal disorders  
 CC at a dosage of 0.05-0.2 mg/kg  
 CC (Updated on 09-JAN-2003 to add missing OS field.)  
 CC (Updated on 25-MAR-2003 to correct PA field.)  
 CC

XX Sequence 14 AA;  
 SQ  
 Query Match 86.5%; Score 77; DB 8; Length 14;  
 Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGFSTC 14  
 DB 1 AGCKNFYWKGFSTC 14

Search completed: August 13, 2003, 14:50:59  
 Job time : 28.2051 secs

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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:49:47 ; Search time 13.641 seconds

(without alignments)  
134.451 Million cell updates/sec

Title: US-09-727-739B-2

Perfect score: 89

Sequence: 1 AGCKNFYKGTSC 14

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 492763 seqs, 131003257 residues

Total number of hits satisfying chosen parameters: 492763

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : Published Applications AA:\*

- 1: /cgn2\_6/ptodata/2/pubpaa/US07\_PUBCOMB.pep.\*
- 2: /cgn2\_6/ptodata/2/pubpaa/US06\_NEW\_PUB.pep.\*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Match	Query Length	ID	Description
1	77	86.5	14	10	US-09-316-505-2
2	77	86.5	14	12	US-10-224-640-2
3	77	86.5	14	12	US-10-251-703-18
4	77	86.5	14	14	US-10-101-487-37
5	77	86.5	15	14	US-10-101-487-52
6	77	86.5	110	9	US-09-766-396-3
7	77	86.5	110	14	US-10-062-375-3
8	77	86.5	140	9	US-09-280-030-64
9	77	86.5	200	14	US-10-101-487-53
10	63	70.8	14	9	US-09-766-396-8
11	63	70.8	14	14	US-10-062-375-8
12	63	70.8	14	15	US-10-221-841-9
13	63	70.8	15	9	US-09-766-396-23
14	63	70.8	15	14	US-10-062-375-23
15	63	70.8	29	9	US-09-766-396-7

16	63	70.8	29	9	US-09-766-396-11
17	63	70.8	29	14	US-10-062-375-7
18	63	70.8	29	14	US-10-062-375-11
19	63	70.8	84	9	US-09-766-396-10
20	63	70.8	84	14	US-10-062-375-10
21	63	70.8	85	9	US-09-766-396-6
22	63	70.8	85	14	US-10-062-375-6
23	63	70.8	109	9	US-09-766-396-5
24	63	70.8	109	14	US-10-062-375-5
25	63	70.8	112	9	US-09-766-396-2
26	63	70.8	112	12	US-10-335-125-3
27	63	70.8	112	14	US-10-062-375-2
28	60	67.4	29	12	US-10-335-125-4
29	60	67.4	29	15	US-10-197-954-41
30	60	67.4	105	9	US-09-766-396-26
31	60	67.4	105	12	US-10-335-125-2
32	60	67.4	105	12	US-10-335-125-13
33	60	67.4	105	14	US-10-062-375-26
34	60	67.4	155	12	US-10-137-870-380
35	60	67.4	155	12	US-10-140-018-380
36	60	67.4	155	12	US-10-140-021-380
37	60	67.4	155	12	US-10-140-274-380
38	60	67.4	155	12	US-10-140-471-380
39	60	67.4	155	12	US-10-140-807-380
40	60	67.4	155	12	US-10-140-922-380
41	60	67.4	155	12	US-10-140-924-380
42	60	67.4	155	12	US-10-140-928-380
43	60	67.4	155	12	US-10-141-698-380
44	60	67.4	155	12	US-10-141-702-380
45	60	67.4	155	12	US-10-141-704-380

## ALIGNMENTS

RESULT 1  
US-09-316-505-2

; Sequence 2, Application US/09316505

; Patent No. US2002011461A1

; GENERAL INFORMATION:

; APPLICANT: Burnier, John P.

; APPLICANT: Clark, Ross G.

; APPLICANT: Elias, Kathleen A.

; APPLICANT: McDowell, Robert S.

; APPLICANT: Rawson, Thomas E.

; APPLICANT: Somers, Todd C.

; APPLICANT: Stanley, Mark S.

; TITLE OF INVENTION: LOW MOLECULAR WEIGHT PEPTIDOMIMETIC GROWTH HORMONE SECRETAGOG

; FILE REFERENCE: P0850D2

; CURRENT APPLICATION NUMBER: US/09/316,505

; CURRENT FILING DATE: 1999-05-21

; PRIOR FILING DATE: US 09/057,074

; PRIOR FILING DATE: 1998-04-08

; NUMBER OF SEQ ID NOS: 2

; SEQ ID NO 2

; LENGTH: 14

; TYPE: PRT

; ORGANISM: Homosapiens

US-09-316-505-2

Query Match  
Best Local Similarity 86.5%; Score 77; DB 10; Length 14;

Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYKGTSC 14

Db 1 AGCKNFYKGTSC 14

RESULT 2

US-10-224-640-2

; Sequence 2, Application US/10224640

; Publication No. US20030139348A1

GENERAL INFORMATION:  
APPLICANT: Burnier, John P.  
APPLICANT: Clark, Ross G.  
APPLICANT: Elias, Kathleen A.  
APPLICANT: McDowell Robert S.  
APPLICANT: Rawson, Thomas E.  
APPLICANT: Somers, Todd C.  
APPLICANT: Stanley, Mark S.  
TITLE OF INVENTION: LOW MOLECULAR WEIGHT PEPTIDOMIMETIC GROWTH HORMONE SECRETAGOGUES  
FILE REFERENCE: P0850D2C1  
CURRENT APPLICATION NUMBER: US/10/224,640  
CURRENT FILING DATE: 2002-08-19  
PRIOR FILING DATE: 1998-04-08  
PRIOR APPLICATION NUMBER: US 09/057,074  
PRIOR FILING DATE: 1994-11-16  
PRIOR APPLICATION NUMBER: US 09/316,505  
NUMBER OF SEQ ID NOS: 2  
SEQ ID NO 2  
LENGTH: 14  
TYPE: PRT  
ORGANISM: Homosapiens

S-10-224-640-2  
Query Match 86.5%; Score 77; DB 12; Length 14;  
Best Local Similarity 85.7%; Pred. No. 4.4e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFYWKGTSC 14

RESULT 3  
US-10-251-703-18  
Sequence 18, Application US/10251703  
Publication No. US2003014849A1  
GENERAL INFORMATION:  
APPLICANT: Kullopoulos, Athan  
APPLICANT: Covic, Lidiya  
TITLE OF INVENTION: G Protein Coupled Receptor Agonists and Antagonists and  
TITLE OF INVENTION: Methods of Activating and Inhibiting G Protein Coupled  
TITLE OF INVENTION: Receptors Using the Same  
FILE REFERENCE: NEMC-215 CIP  
CURRENT APPLICATION NUMBER: US/10/251,703  
CURRENT FILING DATE: 2002-09-20  
PRIOR FILING DATE: 2001-04-23  
PRIOR APPLICATION NUMBER: 60/198,993  
NUMBER OF SEQ ID NOS: 41  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 18  
LENGTH: 14  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: Extracellular  
OTHER INFORMATION: Agonist Peptide Sequence

US-10-251-703-18  
Query Match 86.5%; Score 77; DB 12; Length 14;  
Best Local Similarity 85.7%; Pred. No. 4.4e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFYWKGTSC 14

RESULT 4  
US-10-101-487-37  
Sequence 37, Application US/10101487  
Publication No. US20020169125A1  
GENERAL INFORMATION:  
APPLICANT: LEUNG, DAVID W.  
APPLICANT: BERGMAN, PHILIP A.  
APPLICANT: LOFQUIST, ALAN  
APPLICANT: PIETZ, GREGORY E.  
APPLICANT: TOMPKINS, CHRISTOPHER K.  
APPLICANT: WAGGONER JR., DAVID W.  
TITLE OF INVENTION: RECOMBINANT PRODUCTION OF POLYANIONIC POLYMERS AND USES  
FILE REFERENCE: 077319/0329  
CURRENT APPLICATION NUMBER: US/10/101,487  
CURRENT FILING DATE: 2002-03-20  
PRIOR FILING DATE: 2001-03-21  
NUMBER OF SEQ ID NOS: 116  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 37  
LENGTH: 14  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide

US-10-101-487-37  
Query Match 86.5%; Score 77; DB 14; Length 15;  
Best Local Similarity 85.7%; Pred. No. 4.7e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 AGCKNFYWKGTSC 14  
DB 2 AGCKNFYWKGTSC 15

RESULT 5  
US-10-101-487-52  
Sequence 52, Application US/10101487  
Publication No. US20020169125A1  
GENERAL INFORMATION:  
APPLICANT: LEUNG, DAVID W.  
APPLICANT: BERGMAN, PHILIP A.  
APPLICANT: LOFQUIST, ALAN  
APPLICANT: PIETZ, GREGORY E.  
APPLICANT: TOMPKINS, CHRISTOPHER K.  
APPLICANT: WAGGONER JR., DAVID W.  
TITLE OF INVENTION: RECOMBINANT PRODUCTION OF POLYANIONIC POLYMERS AND USES  
FILE REFERENCE: 077319/0329  
CURRENT APPLICATION NUMBER: US/10/101,487  
CURRENT FILING DATE: 2002-03-20  
PRIOR FILING DATE: 2001-03-21  
NUMBER OF SEQ ID NOS: 116  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 52  
LENGTH: 15  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide  
OTHER INFORMATION: Description of Artificial Sequence: Synthetic peptide

US-10-101-487-52  
Query Match 86.5%; Score 77; DB 14; Length 15;  
Best Local Similarity 85.7%; Pred. No. 4.7e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 AGCKNFYWKGTSC 14  
DB 2 AGCKNFYWKGTSC 15

```
RESULT 6
US-09-766-396-3
; Sequence 3, Application US/09766396
; Patent No. US20020013456A1
; GENERAL INFORMATION:
; APPLICANT: Sutcliffe, Gregor J.
; de Lecea, Luis
; Siggins, George R.
; Henriksen, Steven J.
; TITLE OF INVENTION: NEUROPEPTIDES,
; COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESS: THE SCRIPPS RESEARCH INSTITUTE
; STREET: 10666 No. US20020013456A1th Torrey Pines Road, TPC-8
; CITY: La Jolla
; STATE: California
; COUNTRY: US
; ZIP: 92037
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09766,396
; FILING DATE: 18-Jan-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION NUMBER: 08/857,389
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 22908-0002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 324-7041
; TELEFAX: (415) 324-7041
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 110 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: C-terminal
; SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-09-766-396-3
Query Match 86.5%; Score 77; DB 9; Length 110;
Best Local Similarity 85.7%; Pred. No. 0.00027;
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYKGTSC 14
Db 97 AGCKNFFWKTFTSC 110

RESULT 7
US-10-062-375-3
; Sequence 3, Application US/10062375
; Publication No. US20020133000A1
; GENERAL INFORMATION:
; APPLICANT: Sutcliffe, Gregor J.
; de Lecea, Luis
; Siggins, George R.
; Henriksen, Steven J.
; TITLE OF INVENTION: NEUROPEPTIDES,
; COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESS: THE SCRIPPS RESEARCH INSTITUTE
; STREET: 10666 No. US20020133000A1th Torrey Pines Road, TPC-8
; CITY: La Jolla
```

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STATE: California
COUNTRY: US
ZIP: 92037
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/10/062,375
FILING DATE: 30-Jan-2002
CLASSIFICATION: <Unknown>
PRIOR APPLICATION NUMBER: US/08/857,389
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Schmonsees, William
REGISTRATION NUMBER: 31,796
REFERENCE/DOCKET NUMBER: 22908-0002
TELECOMMUNICATION INFORMATION:
TELEPHONE: (415) 324-7041
TELEFAX: (415) 324-7041
INFORMATION FOR SEQ ID NO: 3:
SEQUENCE CHARACTERISTICS:
LENGTH: 110 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
FRAGMENT TYPE: C-terminal
SEQUENCE DESCRIPTION: SEQ ID NO: 3:
US-10-062-375-3
Query Match 86.5%; Score 77; DB 14; Length 110;
Best Local Similarity 85.7%; Pred. No. 0.00027;
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYKGTSC 14
Db 97 AGCKNFFWKTFTSC 110

RESULT 8
US-09-280-030-64
; Sequence 64, Application US/09280030A
; Patent No. US20010021515A1
; GENERAL INFORMATION:
; APPLICANT: Sato, Seiji
; APPLICANT: Higashikuni, Naohiko
; APPLICANT: Kudo, Toshiyuki
; APPLICANT: Kondo, Masaaki
; TITLE OF INVENTION: DNAS ENCODING NEW FUSION PROTEINS AND PROCESSES FOR
; TITLE OF INVENTION: PREPARING USEFUL POLYPEPTIDES THROUGH EXPRESSION OF THE
; FILE REFERENCE: 382.1026
; CURRENT APPLICATION NUMBER: US/09/280,030A
; EARLIER FILING DATE: 1998-03-26
; EARLIER APPLICATION NUMBER: JP10-87339/1998
; NUMBER OF SEQ ID NOS: 66
; SOFTWARE: Patentin Ver. 2.0
; SEQ ID NO 64
; LENGTH: 140
; TYPE: PRT
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Designated is
; OTHER INFORMATION: an amino acid sequence of
; OTHER INFORMATION: MWPsp-MWPmp20-(His)6-EGF-TEV-Somatostatin 28
US-09-280-030-64
Query Match 86.5%; Score 77; DB 9; Length 140;
Best Local Similarity 85.7%; Pred. No. 0.00033;
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;
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Qy 1 AGCKNFYKGTSC 14  
Db 127 AGCKNFYKGTSC 140

## RESULT 9

US-10-101-487-53  
; Sequence 53, Application US/10101487  
; Publication No. US20020169125A1  
; GENERAL INFORMATION:  
; APPLICANT: BERGMAN, DAVID W.  
; APPLICANT: BERGMAN, PHILIP A.  
; APPLICANT: LOFQUIST, ALAN  
; APPLICANT: PIETZ, GREGORY E.  
; APPLICANT: TOMPKINS, CHRISTOPHER K.  
; APPLICANT: WAGGONER, JR., DAVID W.  
; TITLE OF INVENTION: RECOMBINANT PRODUCTION OF POLYANIONIC POLYMERS AND USES  
; FILE REFERENCE: 07/315/0329  
; CURRENT APPLICATION NUMBER: US/10/101,487  
; CURRENT FILING DATE: 2002-03-20  
; PRIOR APPLICATION NUMBER: 60/277,705  
; PRIOR FILING DATE: 2001-03-21  
; NUMBER OF SEQ ID NOS: 116  
; SOFTWARE: Patent In Ver. 2.1  
; SEQ ID NO 53  
; LENGTH: 200  
; TYPE: PRT  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: Description of Artificial Sequence: Synthetic fusion  
US-10-101-487-53

Query Match 86.5%; Score 77; DB 14; Length 200;  
Best Local Similarity 85.7%; Pred. No. 0.00046;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYKGTSC 14  
Db 187 AGCKNFYKGTSC 200

## RESULT 10

US-09-766-396-8  
; Sequence 8, Application US/09766396  
; Patent No. US20020013456A1  
; GENERAL INFORMATION:  
; APPLICANT: Sutcliffe, Gregor J.  
; de Lecea, Luis  
; Siggins, George R.  
; Henriksen, Steven J.  
; TITLE OF INVENTION: COMPOSITIONS AND METHODS  
; NUMBER OF SEQUENCES: 26  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE  
; STREET: 10666 No. US20020013456A1th Torrey Pines Road, TPC-8  
; CITY: La Jolla  
; STATE: California  
; COUNTRY: US  
; ZIP: 92037  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/09/766,396  
; FILING DATE: 18-Jan-2001  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:

APPLICATION NUMBER: 08/857,389  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Schmonsees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638  
INFORMATION FOR SEQ ID NO: 8:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 14 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
FRAGMENT TYPE: C-terminal  
SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
US-09-766-396-8

Query Match 70.8%; Score 63; DB 9; Length 14;  
Best Local Similarity 75.0%; Pred. No. 0.0051;  
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

Qy 3 CRNFYKGTSC 14  
Db 2 CRNFYKGTSC 13

## RESULT 11

US-10-062-375-8  
; Sequence 8, Application US/10062375  
; Publication No. US20020133000A1  
; GENERAL INFORMATION:  
; APPLICANT: Sutcliffe, Gregor J.  
; de Lecea, Luis  
; Siggins, George R.  
; Henriksen, Steven J.  
; TITLE OF INVENTION: COMPOSITIONS AND METHODS  
; NUMBER OF SEQUENCES: 26  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE  
; STREET: 10666 No. US20020133000A1th Torrey Pines Road, TPC-8  
; CITY: La Jolla  
; STATE: California  
; COUNTRY: US  
; ZIP: 92037  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: Patent In Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/10/062,375  
; FILING DATE: 30-Jan-2002  
; CLASSIFICATION: <Unknown>  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US/08/857,389  
; FILING DATE: <Unknown>  
; ATTORNEY/AGENT INFORMATION:  
NAME: Schmonsees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638  
INFORMATION FOR SEQ ID NO: 8:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 14 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
FRAGMENT TYPE: C-terminal

SEQUENCE DESCRIPTION: SEQ ID NO: 8:  
US-10-062-375-8

Query Match 70.8%; Score 63; DB 14; Length 14;  
Best Local Similarity 75.0%; Pred. No. 0.0051;  
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 3 CKNFYKGTSC 14  
||||| |  
Db 2 CKNFYKGTSSC 13

RESULT 12  
US-10-221-841-9  
Sequence 9, Application US/10221841  
Publication No. US20030082648A1  
GENERAL INFORMATION:  
APPLICANT: HINDA, Shoji  
FILE OF INVENTION: No. US20030082648A1 mas-like Receptor Protein and its DNA  
CURRENT APPLICATION NUMBER: US/10/221,841  
CURRENT FILING DATE: 2002-09-12  
PRIOR APPLICATION NUMBER: PCT/JP01/02053  
PRIOR FILING DATE: 2001-03-15  
PRIOR APPLICATION NUMBER: JP 2000-081835  
PRIOR FILING DATE: 2000-03-17  
PRIOR APPLICATION NUMBER: JP 2000-381698  
PRIOR FILING DATE: 2000-12-11  
NUMBER OF SEQ ID NOS: 9  
SEQ ID NO 9  
LENGTH: 14  
TYPE: PRT  
ORGANISM: Rat  
US-10-221-841-9

Query Match 70.8%; Score 63; DB 15; Length 14;  
Best Local Similarity 75.0%; Pred. No. 0.0051;  
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 3 CKNFYKGTSC 14  
||||| |  
Db 2 CKNFYKGTSSC 13

RESULT 13  
US-09-766-396-23  
Sequence 23, Application US/09766396  
Patent No. US20020013456A1  
GENERAL INFORMATION:  
APPLICANT: Sutcliffe, Gregor J.  
de Lecea, Luis  
Siggins, George R.  
Henriksen, Steven J.  
TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES,  
COMPOSITIONS AND METHODS  
NUMBER OF SEQUENCES: 26  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE  
STREET: 10666 No. US20020013456A1th Torrey Pines Road, TPC-8  
CITY: La Jolla  
STATE: California  
COUNTRY: US  
ZIP: 92037

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/09/766,396  
FILING DATE: 18-Jan-2001  
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: 08/857,389  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Schmonsees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638  
INFORMATION FOR SEQ ID NO: 23:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 15 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein  
FRAGMENT TYPE: C-terminal  
SEQUENCE DESCRIPTION: SEQ ID NO: 23:  
US-09-766-396-23

Query Match 70.8%; Score 63; DB 9; Length 15;  
Best Local Similarity 75.0%; Pred. No. 0.0054;  
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY 3 CKNFYKGTSC 14  
||||| |  
Db 3 CKNFYKGTSSC 14

RESULT 14  
US-10-062-375-23  
Sequence 23, Application US/10062375  
Publication No. US20020133000A1  
GENERAL INFORMATION:  
APPLICANT: Sutcliffe, Gregor J.  
de Lecea, Luis  
Siggins, George R.  
Henriksen, Steven J.  
TITLE OF INVENTION: CORTISTATIN: NEUROPEPTIDES,  
COMPOSITIONS AND METHODS  
NUMBER OF SEQUENCES: 26  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE  
STREET: 10666 No. US20020133000A1th Torrey Pines Road, TPC-8  
CITY: La Jolla  
STATE: California  
COUNTRY: US  
ZIP: 92037

COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patent Release #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/10/062,375  
FILING DATE: 30-Jan-2002  
CLASSIFICATION: <Unknown>

PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US/08/857,389  
FILING DATE: <Unknown>  
ATTORNEY/AGENT INFORMATION:  
NAME: Schmonsees, William  
REGISTRATION NUMBER: 31,796  
REFERENCE/DOCKET NUMBER: 22908-0002  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: (415) 324-7041  
TELEFAX: (415) 324-0638  
INFORMATION FOR SEQ ID NO: 23:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 15 amino acids  
TYPE: amino acid  
TOPOLOGY: linear  
MOLECULE TYPE: protein

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; FRAGMENT TYPE: C-terminal
; SEQUENCE DESCRIPTION: SEQ ID NO: 23:
US-10-062-375-23

Query Match      70.8%; Score 63; DB 14; Length 15;
Best Local Similarity 75.0%; Pred. No. 0.0054;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      3 CKNFYKGFSC 14
      |||||:|:|
DB      3 CKNFFWTFSSC 14

RESULT 15
US-09-766-396-7
; Sequence 7, Application US/09766396
; Patent No. US20020013456A1
; GENERAL INFORMATION:
; APPLICANT: Sutcliffe, Gregor J.
;             de Lecea, Luis
;             Sigalos, George R.
;             Henriksen, Steven J.
; TITLE OF INVENTION: COMPOSITIONS AND METHODS
; NUMBER OF SEQUENCES: 26
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: THE SCRIPPS RESEARCH INSTITUTE
; STREET: 10666 NO. US20020013456A1th Torrey Pines Road, TPC-8
; CITY: LA JOLLA
; STATE: California
; COUNTRY: US
; ZIP: 92037
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/09766,396
; FILING DATE: 18-Jan-2001
; CLASSIFICATION: <Unknown>
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 08/857,389
; FILING DATE: <Unknown>
; ATTORNEY/AGENT INFORMATION:
; NAME: Schmonsees, William
; REGISTRATION NUMBER: 31,796
; REFERENCE/DOCKET NUMBER: 22908-0002
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 324-7041
; TELEFAX: (415) 324-0638
; INFORMATION FOR SEQ ID NO: 7:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 29 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
; FRAGMENT TYPE: C-terminal
; SEQUENCE DESCRIPTION: SEQ ID NO: 7:
US-09-766-396-7

Query Match      70.8%; Score 63; DB 9; Length 29;
Best Local Similarity 75.0%; Pred. No. 0.0096;
Matches 9; Conservative 2; Mismatches 1; Indels 0; Gaps 0;

QY      3 CKNFYKGFSC 14
      |||||:|:|
DB      17 CKNFFWTFSSC 28

Search completed: August 13, 2003, 14:53:42
Job time : 13.641 secs
```

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:47:57 : Search time 8.97436 Seconds  
(without alignments)  
150.023 Million cell updates/sec

Title: US-09-727-739b-2

Perfect score: 89

Sequence: 1 AGCKNFYWKGTSC 14

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283308 seqs, 96168682 residues

Total number of hits satisfying chosen parameters: 283308

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : PIR\_76.\*

1: pir1.\*

2: pir2.\*

3: pir3.\*

4: pir4.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	89	100.0	25	2 AG0842	somatostatin-25 -
2	89	100.0	73	2 S00169	somatostatin II pr
3	89	100.0	74	2 S00166	somatostatin II pr
4	89	100.0	115	2 T51064	somatostatin II pr
5	89	100.0	125	2 R1A892	somatostatin II pr
6	79	88.8	25	2 AG0840	somatostatin-25 -
7	77	86.5	14	2 AG0844	somatostatin - sll
8	77	86.5	14	2 AG0842	somatostatin I - c
9	77	86.5	14	2 AG0840	somatostatin I - e
10	77	86.5	14	2 S00172	somatostatin I - s
11	77	86.5	28	2 AG1322	somatostatin-28 -
12	77	86.5	34	2 A32271	somatostatin-relat
13	77	86.5	92	1 R1P65	somatostatin I pre
14	77	86.5	114	1 RIIDS1	somatostatin-14 pr
15	77	86.5	114	2 T50798	preprosomatostatin
16	77	86.5	115	2 JC6166	somatostatin-14 pr
17	77	86.5	116	1 RIHUS1	somatostatin I pre
18	77	86.5	116	1 A28968	somatostatin I pre
19	77	86.5	116	1 RIBOS1	somatostatin precu
20	77	86.5	116	1 R1RTS1	somatostatin precu
21	77	86.5	116	1 R1MSS1	somatostatin precu
22	77	86.5	116	1 S20630	somatostatin I pre
23	77	86.5	121	1 R1AFS1	somatostatin, panc
24	73	82.0	37	2 A32000	somatostatin-14 [p
25	72	80.9	14	2 AG0822	somatostatin-14 [p
26	64	71.9	103	2 JC6167	cortistatin precu
27	63	70.8	112	2 S67489	cortistatin-like p
28	60	67.4	103	2 JC3414	somatostatin-22 pr
29	48	53.9	105	1 RIIDS2	

conserved hypothet  
hypothetical prote  
hypothetical prote  
hypothetical prote  
hypothetical prote  
hypothetical prote  
superoxide dismuta  
chloride channel p  
testosterone-resis  
endoplasmic reticu  
hypothetical prote  
serine/threonine k  
stationary-phase s  
probable polygalac  
beta-xylosidase [I  
CT085 hypothetical

## ALIGNMENTS

## RESULT 1

AG0842

somatostatin-25 - coho salmon

N:Alternate names: somatostatin II precursor

C:Species: Oncorhynchus kisutch (coho salmon)

C>Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 07-May-1999

C:Accession: AG0842; C60842

R:Plisetskaya, E.M.; Pollock, H.G.; Rouse, J.B.; Hamilton, J.W.; Kimmel, J.R.; Andre

Gen. Comp. Endocrinol. 63, 252-263, 1986

A:Title: Characterization of Coho salmon (Oncorhynchus kisutch) islet somatostatins

A:Reference number: AG0842; MUID:87055212; PMID:2877919

A:Accession: AG0842

A:Molecule type: protein

A:Residues: 1-25 <PLI>

A:Accession: C60842

A:Molecule type: protein

A:Residues: 12-25 <PL2>

A:Note: this form, somatostatin

C:Superfamily: somatostatin

C:Keywords: hormone, pancreatic islet

F:1-25/Product: somatostatin-25 #status experimental <MAT1>

F:12-25/Product: somatostatin II #status experimental <MAT2>

Query Match

Best Local Similarity 100.0%; Score 89; DB 2; Length 25;

Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14

Db 12 AGCKNFYWKGTSC 25

## RESULT 2

S00169

somatostatin II precursor - European flounder (tentative sequence) (fragments)

C:Species: Platichthys flesus (European flounder)

C>Date: 07-Sep-1990 #sequence\_revision 07-Sep-1990 #text\_change 31-Mar-2000

C:Accession: S00169

R:Conlon, J.M.; Davis, M.S.; Falkmer, S.; Thim, L.

Eur. J. Biochem. 168, 647-652, 1987

A:Title: Structural characterization of peptides derived from prosomatostatins I and

A:Reference number: S00166; MUID:88029486; PMID:2889597

A:Accession: S00169

A:Molecule type: protein

A:Residues: 1-10;11-45;46-73 <CON>

A:Note: three peptides which probably originate from a common precursor, were isolat

C:Superfamily: somatostatin

C:Keywords: glycoprotein, neuropeptide; pancreatic islet

F:1-10/Product: peptide F1 #status experimental <PF1>

F:11-45/Product: peptide F2 #status experimental <PF2>

F:46-73/Product: peptide F3 #status experimental <PF3>

F:62-73/Disulfide bonds: #status experimental



Query Match 100.0%; Score 89; DB 2; Length 73;  
 Best Local Similarity 100.0%; Pred. No. 3.7e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14  
 |||||  
 Db 60 AGCKNFYWKGTSC 73

RESULT 3  
 S00166  
 somatostatin II precursor - shorthorn sculpin (tentative sequence) (fragments)  
 C:Species: Myoxocephalus scorpius (shorthorn sculpin, daddy sculpin)  
 C:Date: 07-Sep-1990 #sequence\_revision 26-Jan-1996 #text\_change 31-Mar-2000  
 C:Accession: S00166; A26993  
 R:Conlon, J.M.; Davis, M.S.; Falkmer, S.; Thim, L.  
 Eur. J. Biochem. 168, 647-652, 1987  
 A:Title: Structural characterization of peptides derived from prosomatostatins I and II  
 A:Reference number: S00166; MUID:88029486; PMID:2889597  
 A:Accession: S00166  
 A:Molecule type: protein  
 A:Residues: 1-12;13-46;47-74 <CON>  
 A:Note: three peptides which probably originate from a common precursor, were isolated  
 A:Cutfield, S.M.; Carne, A.; Cutfield, J.F.  
 FEBS Lett. 214, 57-61, 1987  
 A:Title: The amino-acid sequences of sculpin islet somatostatin-28 and peptide YY.  
 A:Reference number: A91376; MUID:87190954; PMID:2883025  
 A:Accession: A26993  
 A:Molecule type: protein  
 A:Residues: 17-74 <CON>  
 C:Superfamily: somatostatin  
 C:Keywords: glycoprotein; neuropeptide; pancreatic islet  
 F:1-12/Product: peptide S1 #status experimental <PS>  
 F:13-46/Product: peptide S4 #status experimental <PS>  
 F:47-74/Product: peptide S2 #status experimental <PS>  
 F:63-74/Disulfide bonds: #status experimental

Query Match 100.0%; Score 89; DB 2; Length 74;  
 Best Local Similarity 100.0%; Pred. No. 3.8e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14  
 |||||  
 Db 61 AGCKNFYWKGTSC 74

RESULT 4  
 I51064  
 somatostatin II precursor - rainbow trout  
 C:Species: Oncorhynchus mykiss (rainbow trout)  
 C:Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 16-Jul-1999  
 C:Accession: I51064  
 R:Moore, C.A.; Kittilson, J.D.; Dahl, S.K.; Sheridan, M.A.  
 Gen. Comp. Endocrinol. 98, 253-261, 1995  
 A:Title: Isolation and characterization of a cDNA encoding for preprosomatostatin contai  
 A:Reference number: I51064; MUID:9534921; PMID:7628684  
 A:Accession: I51064  
 A:Status: preliminary; translated from GB/EMBL/DBJ  
 A:Molecule type: mRNA  
 A:Residues: 1-115 <MO>  
 A:Cross-references: EMBL:U32471; NID:9975344; PIDN:AAC59695.1; PID:9975345  
 C:Superfamily: somatostatin

Query Match 100.0%; Score 89; DB 2; Length 115;  
 Best Local Similarity 100.0%; Pred. No. 5.7e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14  
 |||||  
 Db 102 AGCKNFYWKGTSC 115

RESULT 5  
 R1AF52  
 somatostatin II precursor - American goosefish  
 C:Species: Lophius americanus (American goosefish)  
 C:Date: 31-Mar-1981 #sequence\_revision 31-Mar-1981 #text\_change 28-May-1999  
 C:Accession: B93236; A94038; A27376; A01434; A21881; A93236  
 R:Hobart, P.; Crawford, R.; Shen, L.; Pictet, R.; Rutter, W.J.  
 Nature 288, 137-141, 1980  
 A:Title: Cloning and sequence analysis of cDNAs encoding two distinct somatostatin p  
 A:Reference number: A93236; MUID:81052423; PMID:6107860  
 A:Accession: B93236  
 A:Molecule type: mRNA  
 A:Residues: 1-125 <HOB>  
 A:Cross-references: GB:V00641; GB:J00947; GB:M23199; NID:964030; PIDN:CAA23987.1; PI  
 A:Experimental source: islet tissue (endocrine pancreas)  
 R:Spies, J.; Noe, B.D.  
 Proc. Natl. Acad. Sci. U.S.A. 82, 277-281, 1985  
 A:Title: Processing of an anglerfish somatostatin precursor to a hydroxyllysine-conta  
 A:Reference number: A94038; MUID:85113184; PMID:2857489  
 A:Accession: A94038  
 A:Molecule type: protein  
 A:Residues: 98-125 <SPI>  
 R:Andrews, P.C.; Nichols, R.; Dixon, J.E.  
 J. Biol. Chem. 262, 12692-12699, 1987  
 A:Title: Post-translational processing of preprosomatostatin-II examined using fast  
 A:Reference number: A27376; MUID:87308304; PMID:2887572  
 A:Accession: A27376  
 A:Molecule type: protein  
 A:Residues: 1-76; DV<79-89, 'G', 91-125 <AND>  
 C:Superfamily: somatostatin  
 C:Keywords: hydroxyllysine; neuropeptide; pyroglutamic acid  
 F:1-24/Domain: signal sequence #status experimental <SIG>  
 F:25-97/Domain: propeptide #status experimental <PRO>  
 F:97-125/Product: somatostatin II #status experimental <MAT>  
 F:25/Modified site: pyrrolidone carboxylic acid (Gln) (in mature form) #status exper  
 F:114-125/Disulfide bonds: #status experimental  
 F:120/Modified site: hydroxyllysine (Lys) #status experimental

Query Match 100.0%; Score 89; DB 1; Length 125;  
 Best Local Similarity 100.0%; Pred. No. 6.2e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14  
 |||||  
 Db 112 AGCKNFYWKGTSC 125

RESULT 6  
 B60840  
 somatostatin-25 - European eel  
 N:Alternate names: somatostatin II precursor  
 C:Species: Anguilla anguilla (European eel)  
 C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 20-Mar-1998  
 C:Accession: B60840  
 R:Conlon, J.M.; Deacon, C.F.; Hazon, N.; Henderson, I.W.; Thim, L.  
 Gen. Comp. Endocrinol. 77, 181-189, 1988  
 A:Title: Somatostatin-related and glucagon-related peptides with unusual structural  
 A:Reference number: A60840; MUID:89065329; PMID:2904391  
 A:Accession: B60840  
 A:Molecule type: protein  
 A:Residues: 1-25 <CON>  
 C:Superfamily: somatostatin  
 C:Keywords: hormone; hydroxyllysine; pancreatic islet  
 F:20/Modified site: 5-hydroxyllysine (Lys) (partial) #status experimental

Query Match 88.8%; Score 79; DB 2; Length 25;  
 Best Local Similarity 92.9%; Pred. No. 5e-06;  
 Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKGTSC 14  
 |||||  
 Db 12 AGCKNFYWKGTSC 25

## RESULT 7

C60414  
somatostatin - slider turtle  
C:Species: Pseudemys scripta (slider)  
C:Date: 11-Feb-1993 #sequence\_revision 11-Feb-1993 #text\_change 31-Dec-1993  
C:Accession: C60414  
R:Conlon, J.M.; Hicks, J.W.  
Peptides 11, 461-466, 1990  
A:Title: Isolation and structural characterization of insulin, glucagon and somatostatin  
A:Reference number: A60414; MUID:90341082; PMID:1974347  
A:Accession: C60414  
A:Status: preliminary  
A:Molecule type: protein  
A:Residues: 1-14 <CON>  
A:Superfamily: somatostatin  
C:Keywords: neuropeptide

Query Match 86.5%; Score 77; DB 2; Length 14;  
Best Local Similarity 85.7%; Pred. No. 6e-06;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFFWKTFSC 14  
|||||:|||||

## RESULT 8

B60842  
somatostatin I - coho salmon  
C:Species: Oncorhynchus kisutch (coho salmon)  
C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 07-May-1999  
C:Accession: B60842  
R:Piletskaya, E.M.; Pollock, H.G.; Rouse, J.B.; Hamilton, J.W.; Kimmel, J.R.; Andrews, Gen. Comp. Endocrinol. 63, 252-263, 1986  
A:Title: Characterization of Coho salmon (Oncorhynchus kisutch) islet somatostatins.  
A:Reference number: A60842; MUID:87055212; PMID:2877919  
A:Accession: B60842  
A:Molecule type: protein  
A:Residues: 1-14 <PLI>  
A:Superfamily: somatostatin  
C:Keywords: hormone; pancreatic islet

Query Match 86.5%; Score 77; DB 2; Length 14;  
Best Local Similarity 85.7%; Pred. No. 6e-06;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFFWKTFSC 14  
|||||:|||||

## RESULT 9

A60840  
somatostatin I - European eel  
N:Alternate names: somatostatin-14  
C:Species: Anguilla anguilla (European eel)  
C:Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 20-Mar-1998  
C:Accession: A60840  
R:Conlon, J.M.; Deacon, C.F.; Hazon, N.; Henderson, I.W.; Thim, L.  
Gen. Comp. Endocrinol. 72, 181-189, 1988  
A:Title: Somatostatin-related and glucagon-related peptides with unusual structural features.  
A:Reference number: A60840; MUID:89065329; PMID:2904391  
A:Accession: A60840  
A:Molecule type: protein  
A:Residues: 1-14 <CON>  
A:Superfamily: somatostatin  
C:Keywords: hormone; pancreatic islet

Query Match 86.5%; Score 77; DB 2; Length 14;  
Best Local Similarity 85.7%; Pred. No. 6e-06;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFFWKTFSC 14  
|||||:|||||

## RESULT 10

S00172  
somatostatin I - shorthorn sculpin  
C:Species: Myoxocephalus scorpius (shorthorn sculpin, daddy sculpin)  
C:Date: 07-Sep-1990 #sequence\_revision 07-Sep-1990 #text\_change 31-Dec-1993  
C:Accession: S00172  
R:Conlon, J.M.; Davis, M.S.; Falkner, S.; Thim, L.  
Eur. J. Biochem. 168, 647-652, 1987  
A:Title: Structural characterization of peptides derived from prosomatostatins I and II.  
A:Reference number: S00166; MUID:88029486; PMID:2889597  
A:Accession: S00172  
A:Molecule type: protein  
A:Residues: 1-14 <CON>  
A:Note: the source is designated as Cottus scorpius  
C:Superfamily: somatostatin  
C:Keywords: neuropeptide; pancreatic islet

Query Match 86.5%; Score 77; DB 2; Length 14;  
Best Local Similarity 85.7%; Pred. No. 6e-06;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
DB 1 AGCKNFFWKTFSC 14  
|||||:|||||

## RESULT 11

A61322  
somatostatin-28 - sheep  
N:Contains: somatostatin-14  
C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)  
C:Date: 17-Jul-1994 #sequence\_revision 17-Jul-1994 #text\_change 07-May-1999  
C:Accession: A61322; A61344  
R:Spies, J.; Villarreal, J.; Vale, W.  
Biochemistry 20, 1982-1988, 1981  
A:Title: Isolation and sequence analysis of a somatostatin-like polypeptide from ovis  
A:Reference number: A61322; MUID:81184502; PMID:7223368  
A:Accession: A61322  
A:Molecule type: protein  
A:Residues: 1-28 <SP1>  
R:Burgus, R.; Ling, N.; Butcher, M.; Guillemin, R.  
Proc. Natl. Acad. Sci. U.S.A. 70, 684-688, 1973  
A:Title: Primary structure of somatostatin, a hypothalamic peptide that inhibits the

Query Match 86.5%; Score 77; DB 2; Length 28;  
Best Local Similarity 85.7%; Pred. No. 1e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKGTSC 14  
DB 15 AGCKNFFWKTFSC 28  
|||||:|||||

## RESULT 12

A32271  
somatostatin-related protein - Atlantic hagfish  
C:Species: Myxine glutinosa (Atlantic hagfish)  
C:Date: 21-May-1990 #sequence\_revision 21-May-1990 #text\_change 31-Dec-1993

C:Accession: A32271  
 R:Conlon, J.M.; Askensten, U.; Falkmer, S.; Thim, L.  
 Endocrinology 122, 1855-1859, 1986  
 A:Title: Primary structures of somatostatins from the islet organ of the hagfish suggest  
 A:Reference number: A32271; PMID:86195948; PMID:2896118  
 A:Accession: A32271  
 A:Molecule type: protein  
 A:Residues: 1-34 <CON>  
 C:Superfamily: somatostatin  
 C:Keywords: neuropeptide

Query Match 86.5%; Score 77; DB 2; Length 34;  
 Best Local Similarity 85.7%; Pred. No. 1.4e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKFTSC 14  
 |||||:|||||  
 Db 21 AGCKNFYWKFTSC 34

RESULT 13  
 RIPS  
 somatostatin I precursor - pig (fragment)  
 N:Alternate names: prosomatostatin  
 I:Contains: somatostatin 14 (SS-14); somatostatin 28 (SS-28)  
 C:Species: Sus scrofa domestica (domestic pig)  
 C:Date: 30-Nov-1980 #sequence\_revision 31-Jan-1997 #text\_change 31-Jan-1997  
 C:Accession: A34109; A24222; A91273; A93854; A90398; S13616; A01432  
 R:Bersani, M.; Thim, L.; Baldissara, F.G.A.; Holst, J.J.  
 J. Biol. Chem. 264, 10633-10636, 1989  
 A:Title: Prosomatostatin 1-64 is a major product of somatostatin gene expression in pan  
 A:Reference number: A34109; PMID:89278131; PMID:2567292  
 A:Accession: A34109  
 A:Molecule type: protein  
 A:Residues: 1-64 <BER>  
 R:Schmidt, W.E.; Mutt, V.; Kratzin, H.; Carlquist, M.; Conlon, J.M.; Creutzfeldt, W.  
 FEBS Lett. 192, 141-146, 1985  
 A:Title: Isolation and characterization of proSS-32, a peptide derived from the N-termi  
 A:Reference number: A24222; PMID:86030691; PMID:2865169  
 A:Accession: A24222  
 A:Molecule type: protein  
 A:Residues: 1-32 <SC3>  
 R:Pradayrol, L.; Jornvall, H.; Mutt, V.; Ribet, A.  
 FEBS Lett. 109, 55-58, 1980  
 A:Title: N-terminally extended somatostatin: the primary structure of somatostatin-28.  
 A:Reference number: A91273; PMID:80113258; PMID:7353633  
 A:Accession: A91273  
 A:Molecule type: protein  
 A:Residues: 65-92 <PRA>  
 R:Schally, A.V.; Huang, W.Y.; Chang, R.C.C.; Arimura, A.; Redding, T.W.; Millar, R.P.; H  
 Proc. Natl. Acad. Sci. U.S.A. 77, 4489-4493, 1980  
 A:Title: Isolation and structure of pro-somatostatin: a putative somatostatin precursor  
 A:Reference number: A93854; PMID:81054799; PMID:6107906  
 A:Accession: A93854  
 A:Molecule type: protein  
 A:Residues: 65-92 <SCB>  
 R:Schally, A.V.; Dupont, A.; Arimura, A.; Redding, T.W.; Nishi, N.; Linthicum, G.L.; Sch  
 Biochemistry 15, 509-514, 1976  
 A:Title: Isolation and structure of somatostatin from porcine hypothalamus.  
 A:Reference number: A90398; PMID:76136331; PMID:1252409  
 A:Accession: A90398  
 A:Molecule type: protein  
 A:Residues: 79-92 <SC2>  
 R:Experimental source: hypothalamus  
 R:Bersani, M.; Johnsen, A.H.; Holst, J.J.  
 FEBS Lett. 279, 237-239, 1991  
 A:Title: Oxidation/reduction explains heterogeneity of pancreatic somatostatin.  
 A:Reference number: S13616; PMID:91160722; PMID:1672110  
 A:Accession: S13616  
 A:Molecule type: protein  
 A:Residues: 79-92 <BE2>

C:Comment: Somatostatin inhibits the release of somatotropin.  
 C:Superfamily: somatostatin  
 C:Keywords: hormone; hypothalamus; intestine; neuropeptide  
 F:1-64/Domain: propeptide #status experimental <PRO>  
 F:65-92/Product: somatostatin-28 #status experimental <M28>  
 F:79-92/Product: somatostatin-14 #status experimental <M14>  
 F:37/Binding site: carbonyl (Asn) (covalent) #status absent  
 F:81-92/Disulfide bonds: #status experimental

Query Match 86.5%; Score 77; DB 1; Length 92;  
 Best Local Similarity 85.7%; Pred. No. 3.5e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKFTSC 14  
 |||||:|||||

Db 79 AGCKNFYWKFTSC 92

## RESULT 14

## RIDS1

somatostatin-14 precursor - channel catfish

N:Alternate names: somatostatin I

C:Species: Ictalurus punctatus (channel catfish)

C:Date: 30-Jun-1980 #sequence\_revision 31-Dec-1993 #text\_change 18-Jun-1999

C:Accession: S00292; A93897; A92334; A01435

R:Minth, C.D.; Taylor, W.L.; Magazin, M.; Tavlanini, M.A.; Collier, K.; Weith, H.L.;

J. Biol. Chem. 257, 10372-10377, 1982

A:Title: The structure of cloned DNA complementary to catfish pancreatic somatostati

A:Reference number: S00292; PMID:82265698; PMID:6179939

A:Accession: S00292

A:Molecule type: mRNA

A:Residues: 1-114 <AIN>

A:Cross-references: EMBL:V00607; MID:964017; PIDN:CAA23877.1; PID:964018

R:Taylor, W.L.; Collier, K.J.; Deschenes, R.J.; Weith, H.L.; Dixon, J.E.

Proc. Natl. Acad. Sci. U.S.A. 78, 6694-6698, 1981

A:Title: Sequence analysis of a cDNA coding for a pancreatic precursor to somatostat

A:Reference number: A93897; PMID:82082515; PMID:6171821

A:Accession: A93897

A:Molecule type: mRNA

A:Residues: 82-108 <TAI>

A:Cross-references: GB:J00944

R:Andrews, P.C.; Dixon, J.E.

J. Biol. Chem. 256, 8267-8270, 1981

A:Title: Isolation and structure of a peptide hormone predicted from a mRNA sequence

A:Reference number: A92334; PMID:81264223; PMID:6114953

A:Accession: A92334

A:Molecule type: protein

A:Residues: 101-114 <AND>

C:Superfamily: somatostatin

C:Keywords: neuropeptide

F:1-24/Domain: signal sequence #status predicted <SIG>

F:25-100/Domain: propeptide #status predicted <PRO>

F:101-114/Product: somatostatin-14 #status experimental <MAT>

F:103-114/Disulfide bonds: #status experimental

Query Match 86.5%; Score 77; DB 1; Length 114;  
 Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

Qy 1 AGCKNFYWKFTSC 14  
 |||||:|||||

Db 101 AGCKNFYWKFTSC 114

## RESULT 15

## I50798

preprosomatostatin SS-14 - channel catfish

C:Species: Ictalurus punctatus (channel catfish)

C:Date: 13-Sep-1996 #sequence\_revision 13-Sep-1996 #text\_change 16-Jul-1999

C:Accession: I50798

R:Dixon, J.E.; Andrews, P.C.

Adv. Exp. Med. Biol. 188, 19-29, 1985

A:Title: Somatostatins of the channel catfish.  
A:Reference number: 150798; MUID:85303576; PMID:2863931  
A:Accession: 150798  
A>Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: mRNA  
A:Residues: 1-114 <DIR>  
A:Cross-references: GB:M25903; NID:g213339; PIDN:AAA49339.1; PID:g213340  
C:Superfamily: somatostatin

Query Match 86.5%; Score 77; DB 2; Length 114;  
Best Local Similarity 85.7%; Pred. No. 4.3e-05;  
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
QY 1 AGCKNFYWKGTSC 14  
|||||:|||||  
Db 101 AGCKNFYWKGTSC 114

Search completed: August 13, 2003, 14:51:51  
Job time : 9.97436 secs

GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:47:17 ; Search time 5.38462 Seconds  
(without alignments)  
122.269 Million cell updates/sec

Title: US-09-727-739b-2  
Perfect score: 89  
Sequence: 1 AGCKNFYKGTSC 14

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5  
Searched: 127863 seqs, 47026705 residues

Total number of hits satisfying chosen parameters: 127863

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database : SwissProt\_41.\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	Query Match %	Length	ID	Description
1	89	100.0	73	1 SMS2_PLAF6	P21780 platichthys
2	89	100.0	74	1 SMS2_MYOSC	P09876 myoxocephal
3	89	100.0	115	1 SMS2_ONCMY	Q91194 oncorhynch
4	89	100.0	125	1 SMS2_LOPNM	P01170 lophius ame
5	85	95.5	120	1 SMS2_CARNI	Q99944 carassius a
6	83	93.3	28	1 SMS2_ORENT	P20750 oreochromis
7	77	86.5	14	1 SMS1_MYOSC	P01168 sus scrofa
8	77	86.5	14	1 SMS1_ALJMI	P01171 ictalurus p
9	77	86.5	26	1 SMS1_AMICA	Q99944 carassius a
10	77	86.5	34	1 SMS1_MXGL	P01168 sus scrofa
11	77	86.5	92	1 SMS1_PIG	P01168 sus scrofa
12	77	86.5	114	1 SMS1_ICTPU	Q99944 carassius a
13	77	86.5	114	1 SMS1_CARAU	P01168 sus scrofa
14	77	86.5	115	1 SMS1_PROAN	Q99944 carassius a
15	77	86.5	115	1 SMS1_RANRI	P01168 sus scrofa
16	77	86.5	116	1 SMS1_BOVIN	Q99944 carassius a
17	77	86.5	116	1 SMS1_CANFA	P01168 sus scrofa
18	77	86.5	116	1 SMS1_CHICK	Q99944 carassius a
19	77	86.5	116	1 SMS1_HUMAN	P01168 sus scrofa
20	77	86.5	116	1 SMS1_MOUSE	Q99944 carassius a
21	77	86.5	116	1 SMS1_SHEEP	P01168 sus scrofa
22	77	86.5	121	1 SMS1_LOPNM	Q99944 carassius a
23	73	82.0	35	1 SMS1_LAPET	P01168 sus scrofa
24	73	82.0	37	1 SMS1_PETWA	Q99944 carassius a
25	69	77.5	109	1 SMS2_PROAN	P01168 sus scrofa
26	69	77.5	111	1 SMS2_CARAU	Q99944 carassius a
27	64	71.9	103	1 SMS2_RANRI	P01168 sus scrofa
28	63	70.8	109	1 SMS2_MOUSE	Q99944 carassius a
29	63	70.8	112	1 SMS2_RAT	P01168 sus scrofa
30	60	67.4	105	1 SMS2_HUMAN	Q99944 carassius a
31	48	53.9	105	1 SMS2_ICTPU	P01168 sus scrofa
32	45	50.6	147	1 YGDK_ECOLI	Q99944 carassius a
33	45	50.6	234	1 RKL_GUITH	Q99944 carassius a

34 42 47.2 479 1 S61A\_SCHPO  
35 41 46.1 263 1 SURE\_CAUCR  
36 41 46.1 306 1 BSSA\_MOUSE  
37 41 46.1 421 1 PGLR\_MEDSA  
38 41 46.1 584 1 Y328\_CHLPN  
39 40 44.9 302 1 PP12\_DROME  
40 40 44.9 302 1 PP13\_DROME  
41 40 44.9 308 1 PP1\_NEUCR  
42 40 44.9 311 1 PP12\_RABIT  
43 40 44.9 312 1 PP12\_YEAST  
44 40 44.9 319 1 PP11\_ACECL  
45 40 44.9 319 1 PP12\_ACECL

P79088 schizosacch  
Q9a6t5 caulobacter  
Q9er10 mus musculu  
Q40312 medicago sa  
Q92810 chlamydia p  
P12982 drosophila  
Q05547 drosophila  
Q9uw86 neosporea  
P08128 oryctolagus  
P32598 saccharomyc  
P48480 acetabulari  
P48481 acetabulari

## ALIGNMENTS

RESULT 1  
SMS2\_PLAF6 STANDARD; PRT; 73 AA.  
AC P21780;  
DT 01-MAY-1991 (Rel. 18, Created)  
DT 01-MAY-1991 (Rel. 18, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
DE [Tyr7,Gly10]somatostatin-14] (Fragments).  
OS Platichthys flesus (European flounder).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Acanthomorpha; Acanthopterygii; Teleostei; Euteleostei; Neoteleostei;  
OC Pleuronectidae; Pleuronectidae; Platichthys.  
OX NCBI\_TaxID=8260;  
RN [1]  
RP SEQUENCE.  
RC TISSUE=Pancreas;  
RX MEDLINE=88029486; PubMed=2889597;  
RA Corlson J.M., Davis M.S., Falkner S., Thim L.;  
RT "Structural characterization of peptides derived from  
RT prosomatostatin I and II isolated from the pancreatic islets of two  
RT species of teleostean fish: the daddy sculpin and the flounder.";  
RL Eur. J. Biochem. 168:647-652(1987).  
CC -!- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
CC -!- SUBCELLULAR LOCATION: Secreted.  
CC -!- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
KW Cleavage on pair of basic residues; Hormone; Multigene family.  
DR PIR; S00169; S00169.  
FT NON\_TER 1 1  
FT NON\_CONS 10 11  
FT NON\_CONS 45 46  
FT PEPTIDE 46 73  
FT PEPTIDE 60 73  
FT DISULFID 62 73  
SQ SEQUENCE 73 AA; 7989 MW; CCCBA6B30DCB29BB CRC64;  
[Tyr21,Gly24]SOMATOSTATIN-28.  
[Tyr7,Gly10]SOMATOSTATIN-14.

Query Match 100.0%; Score 89; DB 1;  
Best Local Similarity 100.0%; Pred. No. 3.1e-07; Length 73;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 AGCKNFYKGTSC 14  
DB 60 AGCKNFYKGTSC 73

RESULT 2  
SMS2\_MYOSC STANDARD; PRT; 74 AA.  
AC P09876;  
DT 01-MAR-1989 (Rel. 10, Created)  
DT 01-FEB-1991 (Rel. 17, Last sequence update)  
DT 16-OCT-2001 (Rel. 40, Last annotation update)  
DE Somatostatin II precursor [Contains: [Tyr21,Gly24]somatostatin-28;  
DE [Tyr7,Gly10]somatostatin-14] (Fragments).  
OS Myoxocephalus scorpius (Shorthorn sculpin) (Daddy sculpin).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;  
 OC Acanthomorpha; Acanthopterygii; Percomorpha; Scorpaeniformes;  
 OC Cottidae; Cottidae; Myoxocephalus.  
 OX NCBI\_TaxID=8097;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE-Pancreas;  
 RX MEDLINE=88029486; PubMed=2889597;  
 RA Conlon J.M., Davis M.S., Falkner S., Thim L.;  
 RT "Structural characterization of peptides derived from  
 RT prosomatostatin and II isolated from the pancreatic islets of two  
 RT species of teleostean fish: the daddy sculpin and the flounder.";  
 RL Brit. J. Biochem. 168:647-652(1987).  
 RN [2]  
 RP SEQUENCE OF 47-74.  
 RC TISSUE-Pancreas;  
 RX MEDLINE=87190954; PubMed=2883025;  
 RA Cutfield S.M., Carne A., Cutfield J.F.;  
 RT "The amino-acid sequences of sculpin islet somatostatin-28 and  
 RT peptide YY.";  
 RL FEBS Lett. 214:57-61(1987).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 XC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR: S00166; S00166.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1 1  
 FT NON\_CONS 12 13  
 FT NON\_CONS 46 47  
 FT PEPTIDE 47 74 [TYR21, GLY24] SOMATOSTATIN-28.  
 FT PEPTIDE 61 74 [TYR7, GLY10] SOMATOSTATIN-14.  
 FT DISULFID 63 74  
 SQ SEQUENCE 74 AA; 8036 MW; 6864A59A3FA72C47 CRC64;  
 Query Match 100.0%; Score 89; DB 1; Length 74;  
 Best Local Similarity 100.0%; Pred. No. 3.2e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 OY 1 AGCKNFYKGFSTC 14  
 DB 61 AGCKNFYKGFSTC 74  
 RESULT 3  
 ID SMS2\_ONCMY STANDARD; PRT; 115 AA.  
 AC Q91194;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DE Somatostatin II precursor [Contains: [Tyr21, Gly24]somatostatin-28;  
 DE [Tyr7, Gly10]somatostatin-14].  
 OS Oncorhynchus mykiss (Rainbow trout) (Salmo gairdneri).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Actinopterygii; Neopterygii; Teleostei; Euteleostei;  
 CC Protacanthopterygii; Salmoniformes; Salmonidae; Oncorhynchus.  
 OX NCBI\_TaxID=8022;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=9534921; PubMed=7628684;  
 RA Moore C.A., Kittilson J.D., Dahl S.K., Sheridan M.A.;  
 RT "Isolation and characterization of a cDNA encoding for  
 RT preprosomatostatin containing [Tyr7, Gly10]-somatostatin-14 from the  
 RT endocrine pancreas of rainbow trout, *Oncorhynchus mykiss*.";  
 RL Gen. Comp. Endocrinol. 98:253-261(1995).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 XC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR MEDLINE=9534921; PubMed=7628684;  
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 CC -----  
 DR EMBL: U32471; AAC59695.1;  
 DR F0151064; F51064;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1  
 KW Cleavage on pair of basic residues; Hormone; Signal; Multigene family.  
 FT SIGNAL 1 18  
 FT PROPEP 19 87  
 FT PEPTIDE 88 115 [TYR21, GLY24] SOMATOSTATIN-28 (POTENTIAL).  
 FT PEPTIDE 102 115 [TYR7, GLY10] SOMATOSTATIN-14.  
 FT DISULFID 104 115 BY SIMILARITY.  
 SQ SEQUENCE 115 AA; 12963 MW; 520595025FCA6D91 CRC64;  
 Query Match 100.0%; Score 89; DB 1; Length 115;  
 Best Local Similarity 100.0%; Pred. No. 4.8e-07;  
 Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;  
 OY 1 AGCKNFYKGFSTC 14  
 DB 102 AGCKNFYKGFSTC 115  
 RESULT 4  
 ID SMS2\_LOPAM STANDARD; PRT; 125 AA.  
 AC P01170; Q91066;  
 DT 21-JUL-1986 (Rel. 01, Created)  
 DT 01-OCT-1989 (Rel. 12, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin II precursor [Contains: [Tyr7, Gly10]somatostatin-14].  
 OS Lophyrus americanus (American goosefish) (Anglerfish).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Actinopterygii; Neopterygii; Teleostei; Euteleostei;  
 CC Acanthomorpha; Paracanthopterygii; Lophiiformes; Lophiidae; Lophius.  
 OX NCBI\_TaxID=8073;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE=81052423; PubMed=6107860;  
 RA Hobart P.M., Crawford R., Shen L., Pictet R., Rutter W.J.;  
 RT "Cloning and sequence analysis of cDNAs encoding two distinct  
 RT somatostatin precursors found in the endocrine pancreas of  
 RT anglerfish.";  
 RL Nature 288:137-141(1980).  
 RN [2]  
 RP PARTIAL SEQUENCE, AND HYDROXYLATION.  
 RX MEDLINE=87308304; PubMed=2887572;  
 RA Andrews P.C., Nicholas R., Dixon J.E.;  
 RT "Post-translational processing of preprosomatostatin-II examined  
 RT using fast atom bombardment mass spectrometry.";  
 RL J. Biol. Chem. 262:12692-12699(1987).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- MISCELLANEOUS: SOMATOSTATIN II MAY HAVE A DIFFERENT DEGREE OF  
 CC ACTIVITY OR A DIFFERENT TYPE OF TARGET CELL FROM SOMATOSTATIN I.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 CC -----  
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 CC -----  
 DR EMBL: V00641; CAA23987.1;  
 DR PIR: B93236; RIAFS2  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1  
 KW Cleavage on pair of basic residues; Hormone; Signal; Hydroxylation;



RL species of teleostean fish: the daddy sculpin and the flounder. ";  
 RN Eur. J. Biochem. 168:647-652(1987).  
 RP SEQUENCE.  
 RC SPECIES-O. kisutch; TISSUE-Pancreas;  
 RX MEDLINE-87055212; PubMed-2877919;  
 RA Plisetakaya E.M., Pollock H.C., Rouse J.B., Hamilton J.W.,  
 R Kimmel J.R., Andrews P.C., Gorman A.;  
 RT "Characterization of cono salmon (Oncorhynchus kisutch) islet  
 somatostatins. ";  
 RL Gen. Comp. Endocrinol. 63:252-263(1986).  
 RN [3]  
 RP SEQUENCE.  
 RC SPECIES-A. anguilla; TISSUE-Pancreas;  
 RX MEDLINE-89065329; PubMed-2904391;  
 RA Conlon J.M., Deacon C.F., Hazon N., Henderson I.W., Thim L.;  
 RT "Somatostatin-related and glucagon-related peptides with unusual  
 structural features from the European eel (Anguilla anguilla). ";  
 RL Gen. Comp. Endocrinol. 72:181-189(1988).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR; A60840; A60840.  
 DR PIR; B60842; B60842.  
 R PIR; S00172; S00172.  
 R InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Hormone; Multigene family.  
 FT DISULFID 3 14  
 SQ SEQUENCE 14 AA; 1640 MW; D6270F5C09682679 CRC64;  
 Query Match 86.5%; Score 77; DB 1; Length 14;  
 Best Local Similarity 85.7%; Pred. No. 4.5e-06;  
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGFSTC 14  
 DB 1 AGCKNFYWKGFSTC 14  
 RESULT 8  
 SMS\_ALLMI  
 ID SMS\_ALLMI STANDARD; PRT; 14 AA.  
 AC F31885;  
 DT 01-JUL-1993 (Rel. 26, Created)  
 DT 01-JUL-1993 (Rel. 26, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin-14.  
 OS Alligator mississippiensis (American alligator). and  
 OS Trachemys scripta (Red-eared slider turtle) (Pseudemys scripta).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Archosauria; Crocodylidae; Alligatorinae; Alligator.  
 NX NCBI\_TaxID=8496, 34903;  
 RX [1]  
 RP SEQUENCE.  
 RC SPECIES-A. mississippiensis; TISSUE-Stomach;  
 RX MEDLINE-93324451; PubMed-8101369;  
 RA Wang Y., Conlon J.M.;  
 RT "Neuroendocrine peptides (NPY, GRP, VIP, somatostatin) from the brain  
 and stomach of the alligator. ";  
 RL Peptides 14:573-579(1993).  
 RN [2]  
 RP SEQUENCE.  
 RC SPECIES-T. scripta;  
 RX MEDLINE-90341082; PubMed-1974347;  
 RA Conlon J.M., Hicks J.W.;  
 RT "Isolation and structural characterization of insulin, glucagon and  
 somatostatin from the turtle, Pseudemys scripta. ";  
 RL Peptides 11:461-466(1990).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR; C60414; C60414.

DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Hormone.  
 FT DISULFID 3 14  
 SQ SEQUENCE 14 AA; 1640 MW; D6270F5C09682679 CRC64;  
 Query Match 86.5%; Score 77; DB 1; Length 14;  
 Best Local Similarity 85.7%; Pred. No. 4.5e-06;  
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGFSTC 14  
 DB 1 AGCKNFYWKGFSTC 14  
 RESULT 9  
 SMS1\_AMICA  
 ID SMS1\_AMICA STANDARD; PRT; 26 AA.  
 AC Q9PRZ6;  
 DT 16-OCT-2001 (Rel. 40, Created)  
 DT 16-OCT-2001 (Rel. 40, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin I precursor [Contains: Somatostatin-26; Somatostatin-14]  
 DE (Fragment).  
 DE OS Ania calva (Bowfin).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Amiiformes; Amliidae; Ania.  
 OX NCBI\_TaxID=7924;  
 RN [1]  
 RP SEQUENCE.  
 RC TISSUE-Pancreas;  
 RX MEDLINE-94023232; PubMed-8105513;  
 RA Wang Y., Youson J.H., Conlon J.M.;  
 RT "Somatostatin-I is processed to somatostatin-26 and somatostatin-14  
 in the pancreas of the bowfin, Ania calva. ";  
 RL Regul. Pept. 47:33-39(1993)  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR InterPro; IPR004250; Somatostatin.  
 DR Pfam; PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone; Multigene family.  
 FT NON\_TER 1 1  
 FT PEPTIDE 1 26 SOMATOSTATIN-26.  
 FT PEPTIDE 13 26 SOMATOSTATIN-14.  
 FT DISULFID 15 26  
 SQ SEQUENCE 26 AA; 2931 MW; 8A296DC3710552FE CRC64;  
 Query Match 86.5%; Score 77; DB 1; Length 26;  
 Best Local Similarity 85.7%; Pred. No. 8.1e-06;  
 Matches 12; Conservative 1; Mismatches 0; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWKGFSTC 14  
 DB 13 AGCKNFYWKGFSTC 26  
 RESULT 10  
 SMS\_MYXGL  
 ID SMS\_MYXGL STANDARD; PRT; 34 AA.  
 AC P19709.  
 DT 01-NOV-1990 (Rel. 16, Created)  
 DT 01-NOV-1990 (Rel. 16, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin precursor [Contains: Somatostatin-34; Somatostatin-14]  
 DE (Fragment).  
 DE OS Myxine glutinosa (Atlantic hagfish).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Hyperotreti; Myxiniformes;  
 OC Myxiniidae; Myxiniinae; Myxine.  
 OX NCBI\_TaxID=7769;  
 RN [1]  
 RP SEQUENCE.  
 RX MEDLINE-88195948; PubMed-2896118;



RA Conlon J.M., Askewsten U., Falkner S., Thim L.;  
 RT "Primary structures of somatostatins from the islet organ of the  
 RT hagfish suggest an anomalous pathway of posttranslational processing  
 RT of prosomatostatin-1.";  
 RL Endocrinology 122:1855-1859(1988).  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
 DR PIR: A32271; A32271.  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone.  
 FT NON\_TER 1 1  
 FT PEPTIDE 1 34  
 FT PEPTIDE 21 34 SOMATOSTATIN-34.  
 FT DISULFID 23 34 SOMATOSTATIN-14.  
 Q SEQUENCE 34 AA; 3963 MW; 54FF213AFA424C75 CRC64;  
 Query Match 86.5%; Score 77; DB 1; Length 34;  
 Best Local Similarity 85.7%; Pred. No. 1e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWGFTSC 14  
 DB 21 AGCKNFYWGFTSC 34  
 RESULT 11  
 SMS\_PIG  
 ID SMS\_PIG STANDARD; PRT; 92 AA.  
 AC P01169;  
 DT 21-JUL-1986 (Rel. 01, Created)  
 DT 01-OCT-1989 (Rel. 12, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin precursor [Contains: Somatostatin-28; Somatostatin-14]  
 DE (Fragment).  
 GN SST.  
 OS Sus scrofa (Pig).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.  
 OX NCBI\_TaxID=9823;  
 RX MEDLINE=89278131; PubMed=2567292;  
 RA Bersani M., Thim L., Baldissera F.G.A., Holst J.J.;  
 RT "Prosomatostatin 1-64 is a major product of somatostatin gene  
 RT expression in pancreas and gut.";  
 RL J. Biol. Chem. 264:10633-10636(1989).  
 RP [2]  
 RP SEQUENCE OF 1-64.  
 RP MEDLINE=86030691; PubMed=2865169;  
 RA Schmidt W.E., Mutt V., Kratzin H., Carlquist M., Conlon J.M.,  
 RA Creutzfeldt W.;  
 RT "Isolation and characterization of proSS1-32, a peptide derived from  
 RT the N-terminal region of porcine preprosomatostatin.";  
 RL FEBS Lett. 192:141-146(1985).  
 RP [3]  
 RP SEQUENCE OF 65-92.  
 RP TISSUE=Intestine;  
 RP MEDLINE=80113258; PubMed=7353633;  
 RA Pradayrol L., Joernvall H., Mutt V., Ribet A.;  
 RT "N-terminally extended somatostatin: the primary structure of  
 RT somatostatin-28.";  
 RL FEBS Lett. 109:55-58(1980).  
 RP [4]  
 RP SEQUENCE OF 65-92.  
 RP TISSUE=Hypothalamus;  
 RP MEDLINE=81054799; PubMed=6107906;  
 RA Schally A.V., Hung W.-Y., Chang R.C.C., Arimura A., Redding T.W.,  
 RA Millar R.P., Hunkapiller M.W., Hood L.E.;  
 RT "Isolation and structure of pro-somatostatin: a putative somatostatin  
 RT precursor from pig hypothalamus.";  
 RL Proc. Natl. Acad. Sci. U.S.A. 77:4489-4493(1980).

RN [5]  
 RX SEQUENCE OF 79-92.  
 RX MEDLINE=7613631; PubMed=1252409;  
 RA Schally A.V., Dupont A., Arimura A., Redding T.W., Nishi N.,  
 RA Linthicum G.L., Schlesinger D.H.;  
 RT "Isolation and structure of somatostatin from porcine hypothalamus.";  
 RL Biochemistry 15:509-514(1976).  
 RN [6]  
 RX SEQUENCE OF 22-92 FROM N.A.  
 RA Riquet J.;  
 RL Submitted (SEP-1995) to the EMBL/GenBank/DBJ databases.  
 CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
 CC -1- SUBCELLULAR LOCATION: Secreted.  
 CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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 CC or send an email to license@isb-sib.ch).  
 CC EMBL; U36385; AAB38485.1;  
 DR PIR: A34109; RIPGS.  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 KW Cleavage on pair of basic residues; Hormone.  
 FT NON\_TER 1 1  
 FT PEPTIDE 1 64  
 FT PEPTIDE 65 92 SOMATOSTATIN-28.  
 FT PEPTIDE 79 92 SOMATOSTATIN-14.  
 FT DISULFID 81 92  
 Q SEQUENCE 92 AA; 10346 MW; 787CB82CFBBAE76 CRC64;  
 Query Match 86.5%; Score 77; DB 1; Length 92;  
 Best Local Similarity 85.7%; Pred. No. 2.6e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
 QY 1 AGCKNFYWGFTSC 14  
 DB 79 AGCKNFYWGFTSC 92  
 RESULT 12  
 SMS\_PIG  
 ID SMS\_PIG STANDARD; PRT; 114 AA.  
 AC P01171;  
 DT 21-JUL-1986 (Rel. 01, Created)  
 DT 01-AUG-1990 (Rel. 15, Last sequence update)  
 DT 16-OCT-2001 (Rel. 40, Last annotation update)  
 DE Somatostatin I precursor [Contains: Somatostatin-14 (SS-14)].  
 OS Ictalurus punctatus (Channel catfish).  
 CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 CC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Siluriformes;  
 CC Ictaluridae; Ictalurus.  
 OX NCBI\_TaxID=7998;  
 RP [1]  
 RP SEQUENCE FROM N.A.  
 RP MEDLINE=85303576; PubMed=2863931;  
 RA Dixon J.E., Andrews P.C.;  
 RT "Somatostatins of the channel catfish.";  
 RL Adv. Exp. Med. Biol. 188:19-29(1985).  
 RP [2]  
 RP SEQUENCE FROM N.A.  
 RP MEDLINE=82265698; PubMed=6179939;  
 RA Minth C.D., Taylor W.L., Magazin M.D., Taviani M.A., Collier K.J.,  
 RA Weith H.L., Dixon J.E.;  
 RT "The structure of cloned DNA complementary to catfish pancreatic  
 RT somatostatin-14 messenger RNA.";  
 RL J. Biol. Chem. 257:10372-10377(1982).  
 RN [3]  
 RP SEQUENCE OF 82-114 FROM N.A.

RX MEDLINE-82082515; PubMed-6171821;  
RA Taylor W.L., Collier K.J., Deschenes R.J., Weith H.L., Dixon J.E.;  
RT "Sequence analysis of a cDNA coding for a pancreatic precursor to  
RL somatostatin.";  
RN Proc. Natl. Acad. Sci. U.S.A. 78:6694-6698(1981).  
RP SEQUENCE OF 101-114.  
RX MEDLINE-81264223; PubMed-6114953;  
RA Andrews P.C., Dixon J.E.;  
RT "Isolation and structure of a peptide hormone predicted from a mRNA  
RT sequence. A second somatostatin from the catfish pancreas.";  
RL J. Biol. Chem. 256:8267-8270(1981).  
CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- TISSUE SPECIFICITY: Pancreas.  
CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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CC  
CC EMBL: M25903; AAA49339.1;  
CC EMBL: V00607; CAA23877.1;  
CC EMBL: V00608; CAA23878.1;  
CC PIR: I50798; I50798.  
CC PIR: S00292; RIIDS1.  
CC InterPro: IPR004250; Somatostatin.  
CC Pfam: PF03002; Somatostatin; 1.  
CC Cleavage on pair of basic residues; Hormone; Signal;  
CC Multigene family.  
CC SIGNAL 1 24 PROBABLE.  
CC PEPTIDE 101 114 SOMATOSTATIN-14.  
CC DISULFID 103 114  
CC CONFLICT 62 62 E -> Q (IN REF. 2).  
CC SEQUENCE 114 AA; 12419 MW; FEE0F2C76F74D99F CRC64;  
CC  
CC Query Match 86.5%; Score 77; DB 1; Length 114;  
CC Best Local Similarity 85.7%; Pred. No. 3.2e-05;  
CC Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
CC  
CC QY 1 AGCKNFYWKGTSC 14  
CC |||||:||||  
CC DB 101 AGCKNFYWKGTSC 114  
CC  
CC RESULT 13  
CC SNSA\_CARAU STANDARD; PRT; 114 AA.  
CC OYGH5;  
CC 16-OCT-2001 (Rel. 40, Created)  
CC 16-OCT-2001 (Rel. 40, Last sequence update)  
CC 16-OCT-2001 (Rel. 40, Last annotation update)  
CC Somatostatin 1A precursor [Contains: Somatostatin-26; Somatostatin-  
CC 14].  
CC Carassius auratus (Goldfish).  
CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
CC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
CC Cyprinidae; Carassius.  
CC NCBI\_TaxID=7957;  
CC [1]  
CC SEQUENCE FROM N.A.  
CC TISSUE=Brain;  
CC Lin X.-W., Peter R.E.;  
CC "Cloning and characterization of cDNAs encoding preprosomatostatin-I  
CC and -II from goldfish brain.";  
CC Submitted (NOV-1995) to the EMBL/GenBank/DBJ databases.  
CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.

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CC  
CC EMBL: U40754; AAD09359.1;  
CC InterPro: IPR004250; Somatostatin.  
CC Pfam: PF03002; Somatostatin; 1.  
CC Cleavage on pair of basic residues; Hormone; Signal; Multigene family.  
CC SIGNAL 1 24 POTENTIAL.  
CC PROPEP 25 88  
CC PEPTIDE 89 114 SOMATOSTATIN-26 (POTENTIAL).  
CC DISULFID 103 114 SOMATOSTATIN-14.  
CC BY SIMILARITY.  
CC SEQUENCE 114 AA; 12574 MW; B5920013E2D272A4 CRC64;  
CC  
CC Query Match 86.5%; Score 77; DB 1; Length 114;  
CC Best Local Similarity 85.7%; Pred. No. 3.2e-05;  
CC Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;  
CC  
CC QY 1 AGCKNFYWKGTSC 14  
CC |||||:||||  
CC DB 101 AGCKNFYWKGTSC 114  
CC  
CC RESULT 14  
CC SMSL\_PROAN STANDARD; PRT; 115 AA.  
CC AC Q9W7F0;  
CC 16-OCT-2001 (Rel. 40, Created)  
CC 16-OCT-2001 (Rel. 40, Last sequence update)  
CC 16-OCT-2001 (Rel. 40, Last annotation update)  
CC Somatostatin 1 precursor (PSSI) [Contains: Somatostatin-27;  
CC Somatostatin-14].  
CC OS Protophyta; Archaeplastida; Rhodophyta; Rhodospirillum rubrum;  
CC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
CC Dipnoi; Lepidosireniformes; Protopterygia; Protopterus.  
CC NCBI\_TaxID=7888;  
CC [1]  
CC RN SEQUENCE FROM N.A.  
CC TISSUE=Brain;  
CC MEDLINE=99326690; PubMed=10398054;  
CC Irabucchi M., Tostivint H., Lihmann I., Jegou S., Vallarino M.,  
CC "Molecular cloning of the cDNAs and distribution of the mRNAs encoding  
CC two somatostatin precursors in the African lungfish Protopterus  
CC annectans.";  
CC J. Comp. Neurol. 410:643-652(1999).  
CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.  
CC -1- SUBCELLULAR LOCATION: Secreted.  
CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.  
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CC  
CC EMBL: AF126243; AAD39138.1;  
CC InterPro: IPR004250; Somatostatin.  
CC Pfam: PF03002; Somatostatin; 1.  
CC Cleavage on pair of basic residues; Hormone; Multigene family; Signal.  
CC SIGNAL 1 24 POTENTIAL.  
CC PROPEP 25 88  
CC PEPTIDE 89 115 SOMATOSTATIN-27 (POTENTIAL).  
CC DISULFID 102 115 SOMATOSTATIN-14.  
CC BY SIMILARITY.

Search completed: August 13, 2003, 14:51:19  
Job time : 6.38462 secs

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SQ SEQUENCE 115 AA; 12600 MW; BOCEFL603PEAF09 CRC64;
Query Match 86.5%; Score 77; DB 1; Length 115;
Best Local Similarity 85.7%; Pred. No. 3.2e-05;
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1' AGCKNFYKGTSC 14
Db 102 AGCKNFYKGTSC 115

RESULT 15
SMSI_RANRI STANDARD; PRT; 115 AA.
AC P87384; Q9PSI8;
16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
DE Somatostatin 1 precursor (PSS1) [Contains: Somatostatin-14 (S-I)
(SSSI)]
DE Rana ridibunda (Laughing frog) (Marsh frog).
OS Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Amphibia; Batrachia; Anura; Neobatrachia; Ranioidea; Rana.
OX NCBI_TaxID=8408;
RN [1]
SEQUENCE FROM N.A.
RC TISSUE=Brain;
EX MEDLINE=97057290; PubMed=8901629;
RA Tostivint H., Lihmann I., Bucharies C., Vleau D., Coulouarn Y.,
RT Fournier A., Conlon J.M., Vaudry H.;
*Occurrence of two somatostatin variants in the frog brain:
*Characterization of the cDNAs, distribution of the mRNAs, and
*receptor-binding affinities of the peptides.*;
Proc. Natl. Acad. Sci. U.S.A. 93:12605-12610(1996).
[2]
SEQUENCE OF 102-115.
RC TISSUE=Brain;
EX MEDLINE=93038702; PubMed=1358069;
RA Vaudry H., Chartrel N., Conlon J.M.;
RT *Isolation of [Pro2,Met13]somatostatin-14 and somatostatin-14 from the
RT frog brain reveals the existence of a somatostatin gene family in a
RT tetrapod.*;
RL Biochem. Biophys. Res. Commun. 188:477-482(1992).
CC -1- FUNCTION: SOMATOSTATIN INHIBITS THE RELEASE OF SOMATOTROPIN.
CC -1- SUBCELLULAR LOCATION: Secreted.
CC -1- SIMILARITY: BELONGS TO THE SOMATOSTATIN FAMILY.
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CC -----
CC EMBL: U68126; AAC60093.1;
CC F1R; JG8166;
CC InterPro: IPR004250; Somatostatin; 1.
CC Pfam: PF03002; Somatostatin; 1.
CC Cleavage on pair of basic residues: Hormone; Multigene family; Signal.
FT SIGNAL 1 24 BY SIMILARITY.
FT PROPEP 25 99 BY SIMILARITY.
FT PEPTIDE 102 115 SOMATOSTATIN-14.
FT DISULFID 104 115 BY SIMILARITY.
SQ SEQUENCE 115 AA; 12691 MW; 349756FEBA213 CRC64;

Query Match 86.5%; Score 77; DB 1; Length 115;
Best Local Similarity 85.7%; Pred. No. 3.2e-05;
Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1' AGCKNFYKGTSC 14
Db 102 AGCKNFYKGTSC 115
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GenCore version 5.1.6  
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OM protein - protein search, using sw model

Run on: August 13, 2003, 14:48:42 ; Search time 21.1795 Seconds  
(without alignments)  
170.577 Million cell updates/sec

Title: US-09-727-739b-2

Perfect score: 89

Sequence: 1 AGCKNFYKGTSC 14

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 830525 seqs, 258052604 residues

Total number of hits satisfying chosen parameters: 830525

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

SPTREMBL\_23:\*  
1: sp\_archaea:\*  
2: sp\_bacteria:\*  
3: sp\_fungi:\*  
4: sp\_human:\*  
5: sp\_invertebrate:\*  
6: sp\_mammal:\*  
7: sp\_mhc:\*  
8: sp\_ordanelle:\*  
9: sp\_phage:\*  
10: sp\_plant:\*  
11: sp\_rodent:\*  
12: sp\_virus:\*  
13: sp\_vertebrate:\*  
14: sp\_unclassified:\*  
15: sp\_virus:\*  
16: sp\_bacteriap:\*  
17: sp\_archaeap:\*

\*red. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	89	100.0	28	13 Q9PRN9	Q9PRN9 carassius a
2	89	100.0	114	13 Q90Y41	Q90Y41 gnathomemus
3	89	100.0	114	13 Q90Y40	Q90Y40 chitkala chi
4	89	100.0	114	13 Q90Y42	Q90Y42 pantodon bu
5	89	100.0	115	13 Q90Y43	Q90Y43 osteoglossu
6	79	88.8	25	13 Q9PRV0	Q9PRV0 anguilla ja
7	77	86.5	114	13 Q8JHX5	Q8JHX5 brachydania
8	77	86.5	116	13 Q90XE1	Q90XE1 acipenser t
9	77	86.5	120	13 Q90Y39	Q90Y39 costomus
10	69	77.5	111	13 Q90XE0	Q90XE0 acipenser t
11	60	67.4	107	13 Q9DDE4	Q9DDE4 brachydania
12	60	67.4	122	4 Q8IDU6	Q8IDU6 homo sapien
13	60	67.4	164	4 Q8NEE5	Q8NEE5 anguilla ja
14	51	57.3	23	13 Q9PRV6	Q9PRV6 brachydania
15	49	55.1	808	13 Q42113	Q42113 brachydania
16	48	53.9	147	16 Q8XFZ7	Q8XFZ7 salmonella

17	47	52.8	434	5	Q33217	Q33217 caenorhabdi
18	45	50.6	147	16	Q8FEE2	Q8FEE2 escherichia
19	44	49.4	95	5	Q8T0N9	Q8T0N9 drosophila
20	44	49.4	110	10	Q8H7A7	Q8H7A7 arabidopsis
21	44	49.4	143	10	Q8H015	Q8H015 oryza sativ
22	44	49.4	539	12	Q8EH17	Q8EH17 avian infec
23	43.5	48.9	149	11	Q9CUL6	Q9CUL6 m adult mal
24	43.5	48.9	843	11	Q9JDB4	Q9JDB4 mus musculu
25	43	48.3	101	15	Q8S9Z2	Q8S9Z2 caprine art
26	43	48.3	139	2	Q8ZBA3	Q8ZBA3 neisseria m
27	43	48.3	139	5	Q76357	Q76357 caenorhabdi
28	43	48.3	157	17	Q9HJ73	Q9HJ73 thermoplas
29	43	48.3	195	16	Q9JZV6	Q9JZV6 neisseria m
30	43	48.3	720	5	Q9V5W4	Q9V5W4 drosophila
31	43	48.3	720	5	Q961T2	Q961T2 drosophila
32	43	48.3	772	5	Q60958	Q60958 leishmania
33	42.5	47.8	117	10	Q9ZTH1	Q9ZTH1 physalis ci
34	42.5	47.8	122	10	Q94G29	Q94G29 physalis lo
35	42	47.2	321	5	O15757	O15757 dictyostel
36	42	47.2	403	10	Q8L9J4	Q8L9J4 arabidopsis
37	42	47.2	403	10	Q9FIT1	Q9FIT1 arabidopsis
38	41	46.1	139	5	Q19698	Q19698 caenorhabdi
39	41	46.1	177	16	Q97GG7	Q97GG7 clostridium
40	41	46.1	284	16	Q8DH47	Q8DH47 synchococc
41	41	46.1	297	11	Q88781	Q88781 rattus ratt
42	41	46.1	326	10	Q9FXL5	Q9FXL5 avicennia m
43	41	46.1	500	16	Q9ASU0	Q9ASU0 caulobacter
44	41	46.1	502	15	Q8PFC5	Q8PFC5 xanthomonas
45	41	46.1	521	15	Q8P3U4	Q8P3U4 xanthomonas

#### ALIGNMENTS

##### RESULT 1

Q9PRN9 PRELIMINARY; PRT; 28 AA.  
AC Q9PRN9; 2000 (Tremblrel. 13, Created)  
DT 01-MAY-2000 (Tremblrel. 13, Last sequence update)  
DT 01-DEC-2001 (Tremblrel. 19, Last annotation update)  
DE GSS-28-SOMATOSTATIN-like peptide.  
OS Carassius auratus (Goldfish).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
OC Cyprinidae; Carassius.  
OX NCBI\_TaxID=7957;  
RN [1]  
RP SEQUENCE.  
RX MEDLINE=960511491; PubMed=8536941;  
RA Uesaka T., Yano K., Yamasaki M., Ando M.;  
RT "Somatostatin-, vasoactive intestinal peptide-, and granulin-like  
peptides isolated from intestinal extracts of goldfish, Carassius  
auratus.";  
RL Gen. Comp. Endocrinol. 99:298-306(1995).  
DR InterPro: IPR004250; Somatostatin.  
DR Pfam: PF03002; Somatostatin; 1  
SQ SEQUENCE 28 AA, 3204 MR, 150271F677C9459E CRC64;

Query Match 100.0%; Score 89; DB 13; Length 28;  
Best Local Similarity 100.0%; Pred. No. 6.2e-08;  
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Oy 1 AGCKNFYKGTSC 14  
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Db 15 AGCKNFYKGTSC 28

##### RESULT 2

Q90Y41 PRELIMINARY; PRT; 114 AA.  
ID Q90Y41  
AC Q90Y41  
DT 01-DEC-2001 (Tremblrel. 19, Created)

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DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE Preprosomatostatin.
OS Gnathonemus petersii.
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;
OC Osteoglossiformes; Mormyridae; Gnathonemus.
OX NCBI_TaxID=42645;
RN [1]
RP SEQUENCE FROM N.A.
RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;
RT "Characterization of variant somatostatin cDNAs from several
RT osteoglossomorphs: molecular identification and comparative
RT analysis.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF292652; AAK97069.1;
DR InterPro; IPR004250; Somatostatin.
DR Pfam; PF03002; Somatostatin; 1.
SQ SEQUENCE 114 AA; 12494 MW; 454DA57A309CA8F2 CRC64;

Query Match 100.0%; Score 89; DB 13; Length 114;
Best Local Similarity 100.0%; Pred. No. 2.5e-07;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Y 1 AGCKNFYWKGTSC 14
| | | | | | | | | | | | | | | |
DB 101 AGCKNFYWKGTSC 114.

RESULT 3
Q90Y40 PRELIMINARY; PRT; 114 AA.
AC Q90Y40;
DT 01-DEC-2001 (TREMBlrel. 19, Created)
DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)
DT 01-JUN-2002 (TREMBlrel. 21, Last annotation update)
DE Preprosomatostatin.
OS Chitla chitla (clown knifefish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;
OC Osteoglossiformes; Neopterygii; Teleostei; Osteoglossomorpha;
OX NCBI_TaxID=112163;
RN [1]
RP SEQUENCE FROM N.A.
RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;
RT "Characterization of variant somatostatin cDNAs from several
RT osteoglossomorphs: molecular identification and comparative
RT analysis.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF292653; AAK97070.1;
DR InterPro; IPR004250; Somatostatin.
DR Pfam; PF03002; Somatostatin; 1.
SQ SEQUENCE 114 AA; 12561 MW; 4E3C32F58E34F971 CRC64;

Query Match 100.0%; Score 89; DB 13; Length 114;
Best Local Similarity 100.0%; Pred. No. 2.5e-07;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Y 1 AGCKNFYWKGTSC 14
| | | | | | | | | | | | | | | |
DB 101 AGCKNFYWKGTSC 114.

RESULT 4
Q90Y42 PRELIMINARY; PRT; 114 AA.
AC Q90Y42;
DT 01-DEC-2001 (TREMBlrel. 19, Created)
DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE Preprosomatostatin.
OS Pantodon buchholzi (Butterflyfish).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

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OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;
OC Osteoglossiformes; Pantodontidae; Pantodon.
OX NCBI_TaxID=8276;
RN [1]
RP SEQUENCE FROM N.A.
RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;
RT "Characterization of variant somatostatin cDNAs from several
RT osteoglossomorphs: molecular identification and comparative
RT analysis.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF292651; AAK97068.1;
DR InterPro; IPR004250; Somatostatin.
DR Pfam; PF03002; Somatostatin; 1.
SQ SEQUENCE 114 AA; 12352 MW; 7E3D44CB6A27B12F CRC64;

Query Match 100.0%; Score 89; DB 13; Length 114;
Best Local Similarity 100.0%; Pred. No. 2.5e-07;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Y 1 AGCKNFYWKGTSC 14
| | | | | | | | | | | | | | | |
DB 101 AGCKNFYWKGTSC 114.

RESULT 5
Q90Y43 PRELIMINARY; PRT; 115 AA.
AC Q90Y43;
DT 01-DEC-2001 (TREMBlrel. 19, Created)
DT 01-DEC-2001 (TREMBlrel. 19, Last sequence update)
DT 01-MAR-2002 (TREMBlrel. 20, Last annotation update)
DE Preprosomatostatin.
OS Osteoglossum bicirrhosum (silver arawana).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Osteoglossomorpha;
OC Osteoglossiformes; Osteoglossidae; Osteoglossum.
OX NCBI_TaxID=109271;
RN [1]
RP SEQUENCE FROM N.A.
RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;
RT "Characterization of variant somatostatin cDNAs from several
RT osteoglossomorphs: molecular identification and comparative
RT analysis.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF292650; AAK97067.1;
DR InterPro; IPR004250; Somatostatin.
DR Pfam; PF03002; Somatostatin; 1.
SQ SEQUENCE 115 AA; 12791 MW; D65FBD7C6F1E4E4D CRC64;

Query Match 100.0%; Score 89; DB 13; Length 115;
Best Local Similarity 100.0%; Pred. No. 2.5e-07;
Matches 14; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Y 1 AGCKNFYWKGTSC 14
| | | | | | | | | | | | | | | |
DB 102 AGCKNFYWKGTSC 115.

RESULT 6
Q9PRV0 PRELIMINARY; PRT; 25 AA.
AC Q9PRV0;
DT 01-MAY-2000 (TREMBlrel. 13, Created)
DT 01-MAY-2000 (TREMBlrel. 13, Last sequence update)
DT 01-DEC-2001 (TREMBlrel. 19, Last annotation update)
DE Somatostatin-related peptide.
OS Anguilla japonica (Japanese eel).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Actinopterygii; Neopterygii; Teleostei; Anguilliformes; Anguillidae;
OX NCBI_TaxID=7937;
RN [1]
RP SEQUENCE.

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RX MEDLINE-95053622; PubMed-7525832;  
 RA Uesaka T., Yano K., Yamashita M., Negashima K., Ando M.;  
 RT "Somatostatin-related peptides isolated from the eel gut: effects on  
 RL ion and water absorption across the intestine of the seawater eel.";  
 DR J. Exp. Biol. 198; 205-216 (1994).  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SQ SEQUENCE 25 AA; 2860 MW; BFC672143A04A3P5 CRC64;

Query Match 88.8%; Score 79; DB 13; Length 25;  
 Best Local Similarity 92.9%; Pred. No. 2.5e-06;  
 Matches 13; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKFTSC 14  
 DB 12 AGCKNFYWKFTSC 25

RESULT 7  
 O8JHX5 PRELIMINARY; PRT; 114 AA.  
 ID O8JHX5  
 AC O8JHX5  
 DT 01-OCT-2002 (Tremblrel. 22, Created)  
 DT 01-OCT-2002 (Tremblrel. 22, Last sequence update)  
 DT 01-MAR-2003 (Tremblrel. 23, Last annotation update)  
 DE Somatostatin-14.  
 GN SSI  
 OS Brachydanio rerio (zebrafish) (Danio rerio).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Cyprinidae; Danio.  
 OX NCBI\_TaxID=7955;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE-22045842; PubMed-12049777;  
 RA Devos N., Delorion G., Biemar F., Bortolussi M., Martial J.A.,  
 RT "Differential expression of two somatostatin genes during zebrafish  
 RL embryonic development.";  
 RL Mech. Dev. 115; 133-137 (2002).  
 DR EMBL: AF435965; I334537 (2002).  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SQ SEQUENCE 114 AA; 12416 MW; 3D4124AE54E74C8 CRC64;

Query Match 86.5%; Score 77; DB 13; Length 114;  
 Best Local Similarity 85.7%; Pred. No. 2.5e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKFTSC 14  
 DB 101 AGCKNFYWKFTSC 114

RESULT 8  
 Q90XE1 PRELIMINARY; PRT; 116 AA.  
 ID Q90XE1  
 AC Q90XE1  
 DT 01-DEC-2001 (Tremblrel. 19, Created)  
 DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)  
 DT 01-MAR-2002 (Tremblrel. 20, Last annotation update)  
 DE Somatostatin.  
 OS Acipenser transmontanus (White sturgeon).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Chondrostei; Acipenseriformes; Acipenseridae;  
 OC Acipenser.  
 OX NCBI\_TaxID=7904;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX TISSUE-Brain;  
 RA Trabucchi M., Tostivint H., Lihmann I., Sollars C., Vallarino M.,  
 RT "Polygenic expression of somatostatin in the sturgeon Acipenser  
 Dore R.M., Vaudry H.;  
 J. Comp. Neurol. 0:0-0(2001).  
 EMBL: AF395850; AAL13249.1;

RT transmontanus: molecular cloning and distribution of the mRNAs  
 RL encoding two somatostatin precursors.";  
 RL J. Comp. Neurol. 0:0-0(2001).  
 DR EMBL: AF395849; AAL13248.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SQ SEQUENCE 116 AA; 12616 MW; 72E0C3FF6C80650F CRC64;

Query Match 86.5%; Score 77; DB 13; Length 116;  
 Best Local Similarity 85.7%; Pred. No. 2.5e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKFTSC 14  
 DB 103 AGCKNFYWKFTSC 116

RESULT 9  
 Q90Y39 PRELIMINARY; PRT; 120 AA.  
 ID Q90Y39  
 AC Q90Y39  
 DT 01-DEC-2001 (Tremblrel. 19, Created)  
 DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)  
 DT 01-MAR-2002 (Tremblrel. 20, Last annotation update)  
 DE Preprosomatostatin.  
 OS Catostomus commersoni (White sucker).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; Teleostei; Ostariophysi; Cypriniformes;  
 OC Catostomidae; Catostomus.  
 OX NCBI\_TaxID=7971;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RA Al-Mahrouki A.A., Irwin D.M., Youson J.H.;  
 RT "Molecular cloning and characterization of white sucker  
 RL preprosomatostatin.";  
 RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.  
 DR EMBL: AF292654; AAK97071.1;  
 DR InterPro: IPR004250; Somatostatin.  
 DR Pfam: PF03002; Somatostatin; 1.  
 SQ SEQUENCE 120 AA; 13783 MW; 00828D35263E8805 CRC64;

Query Match 86.5%; Score 77; DB 13; Length 120;  
 Best Local Similarity 85.7%; Pred. No. 2.5e-05;  
 Matches 12; Conservative 1; Mismatches 1; Indels 0; Gaps 0;

QY 1 AGCKNFYWKFTSC 14  
 DB 107 AGCKNFYWKFTSC 120

RESULT 10  
 Q90XE0 PRELIMINARY; PRT; 111 AA.  
 ID Q90XE0  
 AC Q90XE0  
 DT 01-DEC-2001 (Tremblrel. 19, Created)  
 DT 01-DEC-2001 (Tremblrel. 19, Last sequence update)  
 DT 01-MAR-2002 (Tremblrel. 20, Last annotation update)  
 DE Somatostatin pro2.  
 OS Acipenser transmontanus (White sturgeon).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Chondrostei; Acipenseriformes; Acipenseridae;  
 OC Acipenser.  
 OX NCBI\_TaxID=7904;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX TISSUE-Brain;  
 RA Trabucchi M., Tostivint H., Lihmann I., Sollars C., Vallarino M.,  
 RT "Polygenic expression of somatostatin in the sturgeon Acipenser  
 Dore R.M., Vaudry H.;  
 J. Comp. Neurol. 0:0-0(2001).  
 EMBL: AF395850; AAL13249.1;



AC 042113;  
 DT 01-JAN-1998 (TrEMBLrel. 05, Created)  
 DT 01-JAN-1998 (TrEMBLrel. 05, Last sequence update)  
 DT 01-OCT-2002 (TrEMBLrel. 22, Last annotation update)  
 DE F-spondin1.  
 GN SPON1A.  
 OS Brachydanio rerio (Zebrafish) (Danio rerio).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Actinopterygii; Neopterygii; teleostei; Ostariophysi; Cypriniformes;  
 OC Cyprinidae; Danio.  
 OX NCBI\_TaxID=7955;  
 RN [1]  
 RP SEQUENCE FROM N.A.  
 RX MEDLINE-98104230; PubMed-9441563;  
 RA Higashijima S., Nose A., Eguchi G., Hotta Y., Okamoto H.;  
 "Mindin/F-spondin family: Novel ECM proteins expressed in the  
 zebrafish embryonic axis.";  
 RL Dev. Biol. 192:211-227(1997).  
 DR EMBL; AB006086; BAA22810.1; -;  
 DR ZFIN; ZDB-GENE-000427-9; spon1a.  
 DR InterPro; IPR002861; Reeler.  
 DR InterPro; IPR000884; TSP1.  
 DR Pfam; PF02014; Reeler; 1.  
 DR SMART; SM0090; tsp\_1; 6.  
 DR SMART; SM00209; TSP1; 6.  
 DR PROSITE; PS00092; TSP1; 6.  
 SQ SEQUENCE 808 AA; 90645 MW; 0A24154AA4A89EC7 CRC64;

Query Match 55.1%; Score 49; DB 13; Length 808;  
 Best Local Similarity 57.1%; Pred No. 8.2;  
 Matches 8; Conservative 1; Mismatches 5; Indels 0; Gaps 0;  
 Oy 1 AGCKNFYWGFTSC 14  
 Db 754 AGCKMKWSGWIDC 767

Search completed: August 13, 2003, 14:52:58  
 Job time : 22.1795 secs